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LECTURES

ON

MEDICAL JURISPRUDENCE,

NOW IN COURSE OF DELIVERY,

AT THE

UNIVERSITY OF LONDON.

BY PROFESSOR A. T. THOMSON.

LECTURE XXXIV.

POISONING. *What substances are poisons. History of poisoning. Slow and secret poisoning. Law against poisoning. The action of all poisons is local, or general. Operation of general poisons; by absorption; by sympathy. Points in which poisons act differently on the lower animals and on man. Modification of their action according to the tissue to which they are applied. Habit of using poisons. Their different effects on different animals. Distinct parts of the body specifically affected by different poisons.*

GENTLEMEN:—I have now to direct your attention to the consideration of that cause of death which is more frequent than any other, when an individual, forgetting what is due to his Maker, and to society, and suffering under either real or imaginary evils, sinks into a state of despondency, and commits suicide. I have no doubt that you already anticipate that I am referring to death from poisoning. Poisoning is a mode of extinguishing life which has, also, been frequently resorted to by the murderer; and under such circumstances is regarded as the most revolting to the human mind, even more so than assassination, except in sleep, since it admits of no description of defence. In both cases it becomes a matter of medico-legal investigation, and requires a minute and accurate knowledge on the part of the medical jurist.

The term *toxicology*, is derived from two Greek words, namely, *toxicon*, a poison, and *logas*, doctrine. It is a subject of great extent, but, for practical purposes, it may be confined to the examination of the properties, physiological action, and pathological effects, of those substances, whether natural or artificial, which exert an inordinate and deleterious energy on the animal economy.

Every substance capable of materially injuring or destroying life when it is administered in small quantity, is a poison. By the term *administered*, in this definition, it is not intended to regard as poisons those substances only that are taken into the stomach; many substances are poisonous when they are externally applied: concentrated or anhydrous hydrocyanic acid, applied to the eye, instantly destroys life.

Before entering upon the proper consideration of the subject, let us take a passing glance at the history of poisoning, and the laws which have, at various periods, been enacted respecting it.

Poisoning is a mode of destroying life which, next to assassination in sleep, is the most cowardly, and, consequently, the most dishonourable to human nature. It was resorted to at a very early period of society, both as an instrument of war and for satisfying private revenge. Belladonna was used as an instrument of warfare by the Norwegians; waroora is still used for poisoning arrows by some of the South American Indians; and, at this time, also, Aconitum *ferox* is employed by the Burmese. By more civilized nations, poisons were often resorted to as engines of execution for certain offences; but, notwithstanding these public uses of poisons, the private administration of them, whether for the purposes of suicide or of murder, has always been regarded as a crime of the deepest dye, and is justly punished by the utmost severity of the law.

But, as the ingenuity of man is not confined to the discovery of objects of utility, and for the promotion of happiness, the evasion of the laws against poisoning was attempted, by modifying the influence of poisons, in such a manner as to secure their effects by slow and almost imperceptible degrees. Thence the art of slow or secret poisoning practised in the 17th century, in France and Italy advanced to an alarming height of perfection; but it was previously known to the Greeks, the Romans, and Carthaginians;

there is reason for believing that it was practised by some of the Asiatic nations; and the American Indians are said to be acquainted with a poison which infallibly destroys life, although in a lingering manner; often after the expiration of years.

It was a poison of this description that THEOPHRASTUS* informs us was prepared by the Greeks from Aconite, which could be so modified as to prove fatal at any given time; at a month, or two or three months, or at the end of a year, or of two years. The person who took it was gradually consumed, and died by slow but continued wasting. THEOPHRASTUS, also, states that THRASYAS, an Arcadian, discovered a method of preparing a vegetable poison which caused certain death, without any pain, and during the administration of which life could be protracted for a long time, without the person suffering from weakness.

Secret poisoning was employed by the Romans two hundred years before the Christian æra, and to such a height had the practice arisen at that time, that LIVY† informs us that one hundred and fifty Roman ladies were convicted and punished for preparing and distributing poisons; but even this public example was inadequate to suppress the crime. SEJANUS poisoned DRUSUS; and AGRIPPINA, through the medium of LOCUSTA, dispatched CLAUDIUS by poisons of this description. This LOCUSTA also prepared the poison by which NERO destroyed BRITANNICUS, the son of AGRIPPINA; but, in this instance, the victim fell an immediate sacrifice to the power of the potion as soon as he had tasted it.

The poisons of the ancients were either of a vegetable or an animal nature: they were unacquainted with the metallic poisons, and all those of a mineral origin. The chief were aconite, hemlock, the poppy, and the lepus *marinus*, or aplysia *depilas*, the sea-hare, a moluscous animal.

It was, however, in Italy that secret poisoning was practised to the greatest extent. Its chief adept there was a woman of the name of TOFFANIA, who resided at Palermo, and afterwards at Naples, in the middle of the 17th century. Her poisons were employed chiefly by wives who were anxious to be widows; heirs who were tired of waiting for the natural death of their fathers, and any one who was base enough to execute revenge by means of poison. Her poisons were sold under the names of *Aqua della Toffania*, and *Acquetta di Napoli*, i. e., wine and water of Naples. From six to eight drops were sufficient to kill a strong man; and the dose could be so apportioned as to kill within, or at, a specified time. One of her poisons, sold in small phialsunder the name of *Toffania Manna of St. Nicolas of Bari*, a saint from whose tomb a miraculous oil was supposed to drop, endowed with sovereign virtues. This female demon was seized and thrown into prison in 1709: she involved, by the confession which she made on the rack, many who had protected her, and who afterwards shared in the penal punishment which her crimes deserved. She was strangled, but, as she was dragged from the sanctuary of a convent, her body was thrown at night into its area, in order to mitigate the wrath of the Church.

So far had the art of secret poisoning advanced, that a society of young married women, with a president, one HIERONYMA SPARA, a fortune-teller, was established at Rome, for the purpose of carrying on the art; and many husbands died as soon as they became disagreeable to their wives. The whole society was arrested, and all confessed their crime before they were put to the torture, except SPARA, who with three others were hanged, whilst some of the other associates were whipped, and others banished from their country.

MARY MARGARET D'AUBRAY, daughter of the Lieutenant-civil DREUX D'AUBRAY, the Marchioness de BRINVILLIER, was almost as celebrated an adept in this infamous art, in France, as TOFFANIA was in Italy. She acquired the art from an officer of the name of GODIN DE SAINTE CROIX, with whom she had an illicit amour, and who had acquired the art when confined in the Bastile, from one EXILI, an Italian. In order to try the power of her poisons, she assumed the garb of a Sister of Charity, and administered them to the patients in the hospitals when she mixed their medicines. She next poisoned her father and her brother; but her enormities became at length so notorious, that she was seized, tried, and beheaded on the 16th July, 1676, and her body afterwards burnt.

But the death of this second MEDEA did not suppress the art of secret poisoning; and at length it was found necessary to establish a particular court, under the name "Chambre de Poison," in 1679, for trying the offenders. Many persons of high rank were amongst the names in a list found in the possession of a woman of the name of LA VOISON, who, with another of the name of VIGOREUX, carried on a great traffic in poisons. These two women were burnt alive, on the 22nd of February, 1680. Several of their associates, of ordinary rank, were hanged, whilst the noble culprits were liberated; and the Chambre, which had assumed the character of a political Inquisition, was then abolished.

The real nature of the secret poisons employed at this time is unknown; but the casket of SAINTE CROIX, who, we are informed, was suffocated in his laboratory by the dropping off of a glass mask which he wore in preparing his poisons, contained corrosive sublimate, regulus of antimony, vitriol

* Hist. Plant. ix. c. 16. † Livius, lib. viii. c. 18.

opium, and a large quantity of ready-prepared poisons, which the physicians who examined them were not able to distinguish. One of the poisons which acted very slowly, was supposed to be a preparation of lead; and we can easily conceive that the long-continued use of the acetate of lead, especially in minute doses, which renders it more liable to be converted into the carbonate, might operate as a slow and certain poison. Indeed, it is confidently stated by CHRISTIAN HENRY ERNAL, who published a dissertation, "De veneno salutem sistens," at Leipsic in 1701, that the *succession powder*, pulvis successio, contained chiefly *sugar of lead*. Dr. HAHNEMANN, perhaps justly, supposes that the poisons of TOFFANIA and BRINVILLIER owed their powers to arsenious acid, as the chief symptoms caused by them were loss of appetite, gnawing pains in the stomach, faintness, great depression of strength, and slow fever. GAGLIANI, however, has asserted, that the principal ingredients were opium and cantharides; but although the former might produce the slow destruction of both the corporeal and the mental powers which followed the use of such poisons, yet the cantharides, instead of aiding, would have counteracted, the influence of the opium. In India, one of the slow poisons is water which has stood a night over recent opium.

Were historical records always authentic documents, the power of poisons would exceed all credibility. Thus, we read that HENRY the Sixth was poisoned by a pair of gloves; Pope CLEMENT the Seventh by the fume of a taper; and that Queen ELIZABETH was intended to be destroyed by a poisoned saddle, which was to be manufactured by a priest. Notwithstanding these fables, there can be no doubt, however, that poison was often administered, even in the sacramental wine. Such was the cause of the death of the Emperor HENRY, of Pope VICTOR, and several German princes. The statement of the manner in which the father of HAMLET was poisoned, although told by a ghost, yet throws some light upon one mode of poisoning formerly practised. Speaking to HAMLET, the ghost says, when asleep—

> "——————— Thy uncle stole,
> With juice of cursed hebenon in a vial,
> And in the porches of mine ears did pour
> The leprous distilment."

In the 5th vol. of HOWEL'S "State Trials," is the entry of a verdict of *felo de se*, at a coroner's inquest, where the death was caused by snuffing poisoned powder.

To the honour of our country be it spoken, the art of slow poisoning was never practised in England; but many cases of sudden murder by poisoning disgrace our annals. By a statute of the 22d of HENRY VIII., wilful poisoning was made high treason, and punished with barbarian severity. The poisoners were ordered to be boiled to death; and a cook of the bishop of ROCHESTER was treated in this manner, for poisoning the poor of the parish. In the succeeding reign, that of EDWARD the Sixth, this law was repealed; and by a statute passed in the first year of that king, it was enacted, that "the wilful poisoning of any person should be adjudged wilful murder of malice prepense," without benefit of clergy. This is the law at the present time; and accessories are regarded in the same light as the principals. In both, the crime is felony.

BLACKSTONE, in his "Commentaries," (vol. iv. p. 197,) says, "It hath been holden that if potions, or plaisters, when given to cure any one, contrary to expectation kills the patient, if the prescriber be not a regular physician or a surgeon, he is guilty of manslaughter at the least." But Lord HALE questions this opinion, "because physic and salves were in use before physicians and surgeons existed."† It is true that when the prescriber is a regular physician or a surgeon, such an event is regarded as neither murder nor manslaughter, but simple misadventure; and the law says, that the practitioner "shall not be punished criminally, however liable he might formerly have been to a civil action for neglect or ignorance." This lenity, however, does not exempt a medical practitioner for wilfully poisoning a patient; it is in him a felony, the same as in any other person.

Such is the law relating to poisoning. Let us now inquire into the general mode in which poisons operate, and the causes that modify their operation.

The action of every poison is either *local* or *general*. Those which operate in the first manner, display their influence by some very obvious change on the tissue to which they are applied, whether they be taken internally, or applied to the surface of the body. But this does not imply that their effects are solely confined to the affected organ. Death may be almost immediately produced when the injury to the organ is so great as directly to destroy its vitality, in which case there is a *sympathetic* suffering in the whole system, as when a man is killed by a violent blow on the stomach; or the fatal issue may gradually ensue, from the function of the part being irrecoverably lost, if the organ be one essential to life.

The *general* action of poisons is independent of any local influence; but it does not exclude the idea of a distinct local impression. Thus, arsenious acid, applied as a caustic in cancer, operates topically, destroying the life of the part, and causing sloughing; but this may be attended by colic, vomiting, convulsion, and death,

† HALE, p. 429.

symptoms which are totally independent of the topical action of the poison. This is demonstrated by the influence of the application of arsenical preparations to the sound skin, when no topical influence is obvious. I shall have occasion to point out several cases of this kind, when treating of arsenious acid as a poison.

Local poisons operate in various ways:—

(*a.*) As *chemical agents*. This is demonstrated by the action of

1. Mineral acids and pure alkalies, in a concentrated state, which dissolve all animal tissues, and, uniting chemically with their components, convert them into new compounds; hence their vitality is destroyed.

2. Nitrate of silver, which also chemically decomposes all animal matter, is itself decomposed by them, and thus destroys their vitality.

3. By bichloride of mercury, which is decomposed and converted into the protoxide and chloride, which unite chemically with the albumen, fibrin, and other principles of the tissue of the organ, and thus destroy its function.

(*b.*) As *powerful excitants*, causing severe local inflammation, and consequent destruction of vitality:—

1. Alcohol augments the action of the capillaries to inflammation.

2. Tartar emetic causes suppuration, from acting more deeply on the cuticular vessels. Cantharides and euphorbium operate in the same manner.

3. Arsenic and oxalic acid extend the inflammation to gangrene and sloughing.

(*c.*) As *local sedatives, local poisons act by direct impressions on the nerves*. This was well illustrated in an experiment of M. Coullon. He immersed one leg of a frog in hydrocyanic acid. That limb became rapidly paralysed, whilst the other limbs remained unaffected. It was, also, well demonstrated by an accident which happened to M. Robiquet: he was conversing for some time with a friend, with his finger on the mouth of a phial of hydrocyanic acid which he held in his hand; that finger became numbed, and continued so for two days. Dr. Addison and Mr. Morgan, experimenting with the poison of Ticunas on a guinea-pig, a minute portion of the poison came into contact with the still living intestine. The consequence was, a complete and instantaneous suspension of the peristaltic motion in that part of the gut which the poison touched; and, in repeating the application of it to other parts, local paralysis was produced.

Sir Benjamin Brodie, on chewing some aconite, was attacked with a partial paralysis of the lips and gums.

1. Poisons which operate as chemical agents, or as local stimulants, act on all surface and tissues; the skin, the mucous, and serous surfaces, the cellular membrane and muscles. Those which operate by local impressions on the nerves, act only where the nerves are numerous and superficial.

2. General poisons operate in two ways only, by being *absorbed* into the circulation, and by nervous *sympathy*.

(*a.*) When a poison operates by absorption, the force of its influence on the habit is proportionate to the absorbing power of the surface to which it is applied; its action is most rapid when the surface is a wound or an ulcer; it is less rapid when it is a serous membrane, and still less when it is a mucous surface. Many convincing illustrations of this mode of action might be adduced. M. Verniere introduced some of the extract of nux vomica into the paw of a dog, after a ligature had been tightened round the leg, to a degree sufficient to arrest the venous, without stopping the arterial circulation in the limb. Blood was then drawn from a vein between the wound and the ligature, and transfused into the veins of another dog, who became quickly affected by the poison, and died, whilst the dog from whom it was drawn, and into whose paw the poison was introduced, and thence absorbed into the veins, was not at all affected.† In repeating such experiments, care must be taken to withdraw enough of blood before the ligature be removed.

Another proof of their absorption is the detection of poisons in the blood. Gmelin and Tiedeman detected acetate of copper in the blood; Meyer and others discovered hydrocyanic acid, both in the blood and in some of the secretions. I have detected iodine in the blood, in the urine, and in the sweat. Such proofs of absorption are not always afforded, however, even when the poisonous agent has been introduced into the blood vessels. Dr. Christison and Dr. Coindet injected eight grains of oxalic acid into the femoral vein of a dog, and then killed the animal, yet they could not detect the poison in the blood, even by the nicest tests.

Several facts are also opposed to the opinion that absorption takes place. One is, that poisons introduced into arteries at a great distance from the brain and the heart act as quickly as when the vessel is close to those organs. This was the case in the experiments of Dr. Addison and Mr. Morgan, whether the Woorara poison was introduced into the femoral artery, or into the carotids.

(*b.*) The operation of general poisons by sympathy is demonstrated when tobacco is applied to the scalp. It causes acute inflammation of the stomach. Dr. Addison and Mr. Morgan introduced Woorara poison into the jugular vein of a dog, above a ligature on the vessel, so that the poison

† Journal des Progress des Sciences Med. 1827.

could not be carried to the heart; yet the dog died in 108 seconds. These experimentalists explain this fact, by supposing that the poisons act on the nervous filaments of the blood vessels, and that their action is transmitted along these minute nerves to the brain, and other vital organs.

The sympathetic operation of poisons is illustrated in the most striking manner, by experiments with hydrocyanic acid. Dr. FREER, Mr. MACAULAY, and Mr. WILKINSON, being employed as witnesses in a case of poisoning by this acid, made several experiments to ascertain the rapidity of its action. One dog was killed by four drachms in eight seconds, another by the same quantity in seven seconds, and a third by four drachms and a half in three seconds. I have seen the anhydrous acid destroy a strong dog in two seconds; and a large dose of the medicinal acid has destroyed the animalbe fore it could have reached the stomach. It operates, and proves as rapidly fatal, when the brain has been previously renioved, as when it remains undisturbed.

Poisons which operate by sympathy, act sometimes on the brain, sometimes on the spinal cord, and at other times the heart is specially affected.

The action on the *brain* is displayed by convulsions, delirium, palsy, und coma; dilated, but at other times, contracted pupils, a cold skin, a small, slow, sinking pulse, and the destruction of the mental energy.

On the *spinal cord*, the action is indicated by tetanus, and by asphyxia from fixation of the chest, as in poisoning by strychnia. The mind and the senses remain entire, demonstrating that the bain is unaffected.

Finally, the action on the *heart* is displayed, when that organ becomes paralysed, and insensible to the galvanic influence. It is, nevertheless, remarkable, that the voluntary muscles retain their irritability. Many poisons which donot destroy rapidly, display their influence chiefly on the heart, as, for example, arsenions and oxalic acids.

These varied uctions of poisons have been determined chiefly by experiments on the lower animals: and from reasoning by analogy their operation on man has been explained But it must be admitted that this method of deciding, although it is the only one which can be adopted, is liable to many errors. The dog is the unimal on whom poisons operate nearly in the same manner as upon man, yet it should be recollected that there is a great difference between the sensibility of the dog and that of the man. By experiments, therefore, upon this animal, all that we can determine is, that such and such a substance is a poison; but the extent of the dose which produces poisonous effects, cannot be determined upon the dog. As dogs vomit readily, ORFILA, MAGENDIE, and others, have tied the œsophagus after the administration of the poison; but, from some experiments which I made upon tying the œsophagus, in dogs to whom no poison had been given, I am of opinion that this plan is only admissible when the poison operates in a very short time after it is administered. After two or three days, changes occur in the œsophagus, and the mucous membrane, and also on the stomach, especially towards the pyloric portions, which display an appearance of congestion, with small ulcerations. Similar appearances are observed in the rectum, in which particles of inflammatory action are conspicuous. It is only by accumulating observations of the influence of poisons upon man himself that the subject can be elucidated.

3. Poisons are greatly modified in their action by the nature of the tissues to which they are applied. This is especially the case with animal poisons:—the syphilitic, the variolous, and viper and snake poisons, and that of hydrophobic animals, operate forcibly when they are introduced into a wound, or are applied to an ulcer, yet, they are perfectly innocuous when they are swallowed. It is not easy to explain this circumstance, unless we suppose that, being of an animal, nature they undergo digestion, and are decomposed. Inorganic poisons, also, in some instances, are modified by the same causes; thus, I have ascertained that when carbonate of lead is introduced into a wound in the limb of a dog, it causes paralysis of that limb; when it is taken into the stomach no deleterious influence is exerted by it.

4. The influence of habit is well known in modifying the influence of poisons. This is peculiarly illustrated by the effects opium, when it operates altogether independently of any morbific changes in the habit, which, we know, will enable individuals to take incredible doses of opium with impunity; but habit displays its influence by enabling persons who have begun to take opium in a small quantity, and have gradually augmented the dose, to take it at length in quantities which, under other circumstances, would prove rapidly poisonous. Twelve fluid drachms of the officinal tincture have been taken daily with impunity.

The Hungarians, who are fond of the seeds of the castor-oil plant, Ricinus *communis*, can take thirty-six grains of them without the smallest inconvenience.

CHARLES IV., of Spain, had been recommended to take the extract of aconite for the relief of rheumatism. He continued taking it until the quantity amounted to 3j daily, although one grain is the common full dose, and gr. iv. prove poisonous.

In Switzerland, fruits of an acid kind are prepared, as preserves, in copper vessels, in order to give them a green colour, yet no inconvenience is experienced by the Swiss

who eat of these preserves; but they prove poisonous if freely eaten by strangers.

A Turk, at Constantinople, acquired the habit of eating corrosive sublimate, until he at length took one drachm of it daily. Dr. CHRISTISON says, "I have little hesitation in avowing my disbelief of the alleged cases of arsenic-eaters and corrosive sublimate-eaters, who could swallow whole drachms at once with impunity." The evidence, however, in proof of this case is such as cannot be doubted. The case was first mentioned by Dr. POUQUEVILLE; it was doubted and criticised by Mr. THORNTON; but it was afterwards verified by Lord BYRON; and, lastly, by Sir JOHN HOBHOUSE. This man lived to the age of ninety-nine years.

Connected with the circumstance of habit, it is necessary to know that poisons display their effects in some animals and not in others. Sweet almonds kill dogs, foxes, fowls; aloes destroys dogs; pepper, hogs; parsley, parrots. Wild goats eat arnica montana with impunity; hogs fatten on henbane and nux vomica; sheep eat conium maculatum and the machineal apple without suffering. Sugar is poisonous to pigeons; dogs cannot be poisoned by the salts of lead introduced into the stomach, probably owing to the large quantity of phosphoric acid and the phosphates contained in their stomach and alimentary canal. These are important facts, which should be kept in remembrance in experimenting on the lower animals with poisons.

Poisons vary in respect to the parts of the system which they affect when they are taken into the stomach. Thus the mineral acids affect the heart, lessening the force, and diminishing the frequency, of the pulse, causing fainting and cold extremities.

Tobacco injected into the rectum causes paralysis of the heart; and, according to Sir B. BRODIE's experiments, upas antiar acts in the same manner.

Secale cornutum causes gangrene of the limbs.

Chromate of potassa affects with inflammation the conjunctiva of the eyes.

Mercurials, hydrocyanic acid, and digitalis, display their influence on the salivary glands.

Arsenious acid and chloride of barium, on the mucous membrane of the alimentary canal, and on the valves of the heart.

Manganese, on the liver.

Cantharides and turpentine on the urinary organs.

Iodine, on the lymphatic glands.

Tobacco, upas antiar, and oxalic acid, by paralysing the heart.

Colocynth, even when applied to a wound in a dog, inflames the colon.

Some poisons act on the brain, the spinal chord, and the heart successively; for instance, if a dose of oxalic acid be taken, not large enough to cause instantaneous death, the first symptoms are tetanic spasms; by degrees the heart is paralysed, and the attack terminates in coma.

LECTURES
ON
MATERIA MEDICA AND THERAPEUTICS,
NOW IN COURSE OF DELIVERY
AT THE
WINDMILL-STREET SCHOOL OF MEDICINE.
BY
GEORGE G. SIGMOND, M.D.

LECTURE XVI.

STRAMONIUM. *Datura Stramonium, the common thorn-apple. Its nativity, localities, and botanical characters. Its narcotic and deleterious qualities. Storcke's opinion of its harmlessness. Questions of its power put by the Royal Society. Poisoning of a man with it at Brentford. Poisoning of a girl and a child with the seeds. Post-mortem appearances. Production of idiotcy by this narcotic. Poisoning with stramonium given medicinally. Case at the Northampton Infirmary. Quantity which will poison. Its employment for bad purposes. Simple loss of reason from its administration. Treatment of poisoning with stramonium. Its use as a remedial agent. Preparation of the extract. Growth of the plant. The active principle. Diseases in which it has been employed. Lecturer's opinion of its value.*

GENTLEMEN:—The *Datura Stramonium*, the common thorn-apple, has become so general in England, that RAY and some other botanists have placed it amongst our British plants, but MARTIN, KALM, and others, consider it a native of the United States, and it is a proof of its abundance there, that it is not uncommon to find the thorn-apple spring up from the earth brought from different parts of that country. ZOLLIKOFFER says it may be seen growing in the summer months in almost every section of the United States, and that it is, as we find it in this country, an inhabitant of barns, dunghills, waste places, and near to gardens. GERARDE tells us, in 1597, that "this plant is rare and strange in England; it was brought in seed from Constantinople by the Right Hon. Lord EDWARD ZOUCH." It has been known under the name of the thorny apple of Peru, the devil's apple, the James' Town weed, the stink weed. It has been also called *Solanum fœtidum*, *Stramonium fœtidum*, and *Stramonium maniacum*. There are several species of this family; among them, the *Datura tatula*, the *Datura fastuosa*, have nearly the same

narcotic power as the *Datura stramonium*. Various are the derivations, some from the Arabic, others from the Latin, of its generic and specific name, but there are none satisfactory.

It is an annual plant, growing to the height of about two feet; the root is woody and fibrous, the stem round, branching, smooth, and leafy. The leaves are large, of a dark-green colour on the upper surface, somewhat paler beneath; they are on long round petioles, and are ovate, pointed, and toothed. The flowers are of a white colour, are large, and are on short footstalks, axillary, and solitary. The calyx is about two inches long, is monosepalous, tubular, and five-toothed; the corolla is somewhat longer than the calyx, and is funnel-shaped. There are five filaments which support oblong, flat, heart-shaped anthers; the style is of the same length with the stamens, and has a bilobed stigma. The fruit is a large ovate capsule, somewhat roundish, four-celled at the bottom, two-celled at the top, for two of the valves do not extend all through the capsule, which contains a great number of reniform seeds, of a blackish hue. The capsule is beset with sharp spines. At night-time the leaves, particularly the upper one, rise up, and shut in the flowers, which appear from the month of July to the beginning of September.

For what great end in the economy of nature this plant is designed we are not thoroughly able to judge, though, from the care with which the seeds are shut up in a capsule, which threatens and inflicts pain on those who incautiously handle it, and from the closingin of the flowers at night, we are led to draw the conclusion, that it performs some useful office in the great chain of existence. That it possesses considerable power upon animal life there can be no doubt, for its leaves, its capsule, and its seeds, are all capable of producing narcotism. It gives to the tongue a bitter taste, and its smell has some resemblance to that which the poppy has, and it has much influence. Bergius, whilst describing the plant, was affected by its odour, and on chewing a little of the leaf he felt intoxicated, and describes it as the sort of sensation that follows the smoking of tobacco. Haller classes it, from its odour, amongst the most deleterious of this class of plants, as others have done before him, and the only testimony against its virulence is that of the celebrated Storck, who has given us his experience in the gathering of the herb and preparing from it an extract. He gathered the plant early in the morning, upon an empty stomach; he rubbed the stem and the leaves with his fingers very assiduously; he perceived a heavy, disagreeable nauseous odour, but nothing intoxicating. He evaporated eight pounds of the juice to the consistence of an extract, and though he slept in the same room in which he expressed the juice from the fresh leaves, he felt no particular oppression or narcotism; but on waking in the morning he had an obtuse pain in the head; it did not, however, prevent him from following his usual occupation, and after his breakfast this sensation left him. He swallowed a portion of this extract; it produced upon him no unusual sensation, notwithstanding he had, from the works of the authors whom he had consulted, been led to expect delirium, insanity, the loss of memory, of ideas, and convulsions.

The records which we have certainly lead us to look upon the thorn-apple as a most decided narcotic, and, indeed, externally applied, it has had this effect, for the application of the leaves to a burn has been attended with the most serious consequences. What the opinion of the learned of this country was, may be judged by a question put to our ambassadors by the *Royal Society* soon after its institution,—"Whether the Indians can so prepare that stupifying herb, datura, that they make it lie several days, months, years, according as they will have it, in a man's body, without doing him any hurt, and at the end kill him without missing half an hour's time?" The answer made by Sir Philberto Vernatti, the resident in Batavia, was, "That the China men in this place formerly used datura as a fermentation to a sort of drink much beloved by the soldiers and mariners, called suykerbier, which makes them raging mad, so that it is forbidden strictly, under the penalty of a great pain, to make use of the same." Another question was, "Whether those that be stupified by the juice of this herb, datura, are recovered by moistening the soles of their feet in cold water?" To this the reply was, "No, for I have seen divers soldiers and mariners fall into the rivers and ditches, being stupified by their drink aforesaid, who were rather worse when they were taken out than after."

The effects of datura stramonium may be learnt from a case which occurred at Brentford:—A man, 69 years of age, of a strong constitution, was afflicted for two years with gravel, and a friend recommended him to take for this complaint a decoction of the fruit of the common burdock; he by mistake gathered the fruit of the thorn-apple, and dividing three of them, each of which was as big as a small hen's egg, into two parts, he boiled them in a pint of milk, which, when a little cooled, he drank off at about eight in the morning on an empty stomach; presently afterwards he became vertiginous, and, therefore, rose from his chair to take the air, with an intention to pluck more fruit. In walking two or three hundred yards from his house he staggered, as if drunk; he feared he should fall on his head, and that he was about to lose his senses, but had no sickness, nor the least inclination to vomit. As soon

as he reached home he went to bed, and complaining of an excessive dryness of his tongue and throat, a little water, mixed with wine, was given him. He also felt an odd sensation of dryness in, and tightness across, the thorax. He began, in less than half an hour, to faulter in his speech; became insensible, restless, and muttered frequently, in which condition Dr. SWAINE found him. His extremities, and also the trunk of his body, were cold; his pulse small, and quick; he often raised himself on his knees, continually stretched out his arms, and employed his hands as if searching for something he wanted; his eyes were dull and heavy; after some time he became dumb, and more quiet; he had scarcely any pulse, and upon being taken out of bed, that it might be put into better order, his limbs were visibly paralytic. Although he changed postures a little, yet he remained stupid for six or seven hours, then he raged furiously, requiring two persons to hold him in bed, notwithstanding which he raised himself up, tossed greatly, and seemed to catch at the by-standers with his hands, uttering incoherent sentences. At last he became sensible and more quiet, restless and delirious by turns, and at about seven o'clock in the evening of the same day he perfectly recovered.

The seeds seem to have a much more decided influence than any other part of the plant, and they have the power of producing hydrophobia, properly speaking, with many of the symptoms that follow that disease when produced by the bite of a rabid animal. In a case detailed by Mr. FOWLER, a girl, nearly six years of age, who swallowed three-fourth parts of the seeds of a fresh, ripe, middle-sized, thorn-apple, was incapable of swallowing, became raving, attempted to bite a man's hand, and exclaimed, that she saw cats, dogs, and rabbits at the tops, sides, and middle of the room. HEIN has also given us an account of two infants, who, from a similar cause, had convulsions, sense of strangulation at the fauces, and hydrophobia. BLANCARD also states a case of a girl, eighteen months old, in whom raving, biting, foaming at the mouth, and convulsions ensued.

Mr. DUFFIN, of Foley-place, has given us a very interesting and instructive narrative of the symptoms consequent upon the swallowing of some seeds of stramonium by a little child, his daughter, who was about two years of age. After evincing some irritability of temper, accompanied by general itching of the skin, in about an hour; flushed countenance, wildness of manner, suffused eyes, maniacal expression, ineffectual efforts to vomit, came on, incoherent and rapid utterance, striking at imaginary objects which appeared to terrify her. She then became furiously delirious, struck, pinched, and attempted to bite, any intervening object. Within two hours and a half her power of utterance and voice were lost, she had a sonorous, croupy, barking cough, and incapability of deglutition; these symptoms excited a suspicion of hydrophobia, which was removed by the vomiting from the stomach of some of the seeds. She became insensible, the voluntary power over the extremities was lost, the limbs were violently agitated by spasmodic twitching and jactitation, alternating with short paroxysms of tetanic spasm. The pupils were dilated throughout the stages, the pulse was almost imperceptible from the first, but, so far as it could be felt, was natural in regard to velocity; in about three hours coma supervened, but the convulsive twitching and jactitation alternating with spasmodic motions of the hands and arms, remained. The muscles of the face were never affected by the spasms, nor the expression of the countenance at any time distorted. The comatose stage lasted about two hours; a tympanitic state of the bowels presented itself, the belly became tense; she had a stage of excitement and one of collapse, and after exhibiting a train of symptoms which cannot fail to remind the reader of those that occur in hydrophobia, she died, exactly twenty-four hours after swallowing the seeds. Emetics of ipecacuanha, of tartarized antimony, and of sulphate of zinc, were uselessly tried; from the insolubility of the substance swallowed, the stomach-pump was not employed. Twenty seeds were dislodged by the vomiting. Castor oil was given, and an enema administered. Calomel and jalap were required before the bowels unloaded themselves, and upwards of eighty seeds were thus brought away. Cloths dipped in cold water, and leeches, were applied to the temples during the comatose stage, and the child was also immersed in the warm bath. Mr. DUFFIN was assisted on this melancholy occasion by the advice and valuable suggestions of Dr. ANTHONY TODD THOMSON, who administered about a scruple of calcined magnesia, with four drops of liquor potassæ, every half hour, with the hope that it might neutralize the specific operation of the poison, but nothing appeared to have the least influence in mitigating the symptoms. After death it was only the pharynx and larynx that presented any striking morbid appearances. There was a slight unusual blush pervading the pharynx and œsophagus, to about one-third their extent, but a very distinct band of vascularity, about half an inch broad, was formed at the junction of the tube with the pharynx; the larynx was similarly injected, but not quite in so marked a degree; the rima glottis was thickened, and very turgid. It is not unworthy of your particular observation, that not a single seed was found in the whole extent of the canal.

Dr. RUSH and Dr. BARTRAM have both given us instances of the recovery of children,

but in neither of the cases that they have detailed do the seeds seem to have been taken in large quantities. In the one that is detailed by the latter physician in the "Transactions" of the College of Physicians at Philadelphia, there was idiotcy without fever; the child appeared very happy, talking and laughing, in constant motion; the pulse was natural, the tongue clean, and no internal function, except that of the brain, was disturbed. There are instances in which idiocy is mentioned as the principal symptom developed; and there is an amusing passage in BEVERLY'S "History of Jamaica" which illustrates this fact. He says, "that the James' Town weed, which resembles the thorny apples of Peru, and which I take to be the plant so called, is supposed to be one of the greatest coolers in the world. This being an early plant was gathered very young for a boiled salad by some of the soldiers sent thither to quell the rebellion of BACON, and some of them ate plentifully of it; the effect of which was a very pleasant comedy, for they turned natural fools upon it for several days. One would blow up a feather in the air, another would dart straws at it with much fury, another, stark naked, was sitting up in a corner like a monkey, grinning and making mouths at them, a fourth would fondly kiss and paw his companions, and sneer in their faces with a countenance more antic than any in a Dutch doll. In this frantic condition they were confined, lest in their folly they should destroy themselves. A thousand simple tricks they played, and after eleven days returned to themselves again, not remembering any thing that had passed."

There was a very extraordinary case of its effects, which occurred at Minorca; but, as ORFILA has stated, plants growing in warm situations often possess much greater energetic power of action than we observe in more northern latitudes, besides which, the inhabitants of warm climates are much more alive to the impression of powerful medicines than are the natives of this country. The case to which I allude was that of a lady who had suffered from intense periodical headach, which destroyed sleep, and rendered her totally unfit for any occupation; her health in other respects was unimpaired. Various remedies had been in vain tried, and at last a grain of an extract of stramonium was given every successive morning for four days; as no relief followed, the dose was doubled on the fifth, and about four hours afterwards, symptoms of poisoning by stramonium were developed. The face was of a purple-red colour, swollen; eyes prominent, pupils dilated, eyelids half closed, and vision nearly lost; hearing impaired; muscles of the lower jaw, lips, righ arm, and leg, convulsed; left side completely paralyzed, and the intellect singularly disturbed; continual incoherent stammering, weeping, and other expressions of dreadful suffering; deglutition difficult, abdomen sore, pulse small and frequent, respiration tight and hurried, temperature natural; cold sweats, confined to the paralyzed part. Ten leeches were applied behind the ears, sinapisms to the feet, injection of common salt and vinegar administered, and vinegar and water given internally; an emetic was not prescribed, the symptoms indicative of absorption proving that the poison was no longer in the intestinal canal. The phenomena gradually subsided, the paralyzed limb began to execute slight movements; about midnight there came on another, but less violent, attack, which was relieved by antispasmodics; weakness and indistinct articulation only remained; the headach never recurred. In nine days the patient was completely restored.

A case occurred at the *Northampton Infirmary*, where a woman was brought who had by mistake drunk two cups full of an infusion of datura stramonium, which she some how or other had given her by mistake for an infusion of senna. The symptoms of poisoning were very fully developed; but an early employment of the stomach-pump recovered her from the cause and from the effects.

There are very many instances which could be adduced as proofs of the violence of the agency of the thorn-apple, and it should be noticed by you that the symptoms are soon visible; that they run their course with very great rapidity occasionally; in one instance death occurred in six hours; that although sometimes its effects are transitory, yet in general they are fatal. What the quantity of seeds may be which will prove fatal has not been ascertained. In the case related by Mr. DUFFIN upwards of a hundred in number were swallowed, which, by subsequently weighing an equal number, proved to be about sixteen grains in weight. Mr. FOWLER calculated that one child who had most severe symptoms of poisoning had swallowed a drachm and a half of the seed, whilst another whose general symptoms were much milder had taken only half a drachm. Dr. GREDING has increased the dose of an extract from one grain to half a drachm in 24 hours in mania, and some of his patients in this disease have taken from twelve drachms to two ounces, with no other effect than first producing tormina, and then lax bowels; but he cured no cases by it. Under these states of cerebral affection, however, such extraordinary quantities of the most energetic narcotics can be taken without the slightest effect, that we have no right to draw any inference from what might otherwise be important, besides which, the extract could not be called good, for on making some himself he found most important alterations in the results.

We are told by KÆMPFER, that the In-

dians employ a datura for the purpose of exciting a pleasing intoxication, but the Danish missionaries do not believe it to be stramonium; and GARZIA D' ALL' HORTO, in his "Historia dei Simplici Aromatici," states, that in Malabar, when thieves intend to rob an individual, they drug his food with some of the flowers, which causes him to lose his senses, and to be seized with uncontrollable laughter, in which state they willingly submit to be pillaged. It has been employed on the Continent for similar purposes, and also for a more atrocious crime,—the stupefaction of a female for criminal purposes. LINDENSTOLPE gives us an instance of this kind at Hamburg; and in GMELIN'S "Geschicht der Planzengifte" is a minute narration of the dreadful sufferings of a young girl to whom had been administered, in coffee, some of this herb, by a wretch who had a design upon her chastity. Delirium, nymphomania, tremors, convulsions, delirium, tetanus, were amongst the symptoms; she was, however, fortunately restored to health.

Sometimes this poisoning, where corporeal recovery has taken place, has been followed by a total loss of reason. The Turkish females, when shut up in their monotonous seraglio, find opportunities of stupefying their husbands, and of disordering their intellects, and of revenging themselves, even before their very eyes, by making them witness to their embraces of some favoured lover; and FABER, in his learned work on strychnomania, says:—'Decoctum daturæ maritis propinant, quo, fit ut apertis oculis nequitiam et turpitudinem propriam inspicientes, mente tamen turbati, cachinno tantum seipsos deludant ac subsannatium morsus probent." MURRAY, of Gottingen, in the "Apparatus Medicaminum," has collected some other proofs of the singular effects of this herb; and in one of the volumes of the old "Medical and Physical Journal," about the year 1812, you will find some very curious papers on the stramonium, evidently written by the same ingenious and learned person who collected the singular details which I have had occasion to refer you to on tobacco. These papers are very well written, and I have made some attempts to find to whose pen they were to be attributed, but unsuccessfully.

The experiments of ORFILA prove that the effects of datura are very similar to those of belladonna upon animals, but that the former excites more strongly the brain, and produces more violent general action. In those cases in which morbid examination has been permitted, the vessels of the brain have been turgid with blood, and extravasation has taken place; and on this account bloodletting has been recommended, and it has been found very successful. Emetics and oleaginous medicines have also been given; but probably the best remedy, as in almost all the narcotics of which I have spoken to you, is the cold affusion on the head, for from such treatment I have uniformly found the most successful results, in cases of poison by these agents.

An enema of an infusion of stramonium has been tried, but it has not been stated what effects followed on it, though the death of the Duke DE LA VAUGUYON, at Paris, was attributed to the mistake of an apothecary's apprentice, who sent three drachms of datura stramonium instead of a similar quantity of the leaves of tobacco, which had been prescribed as a clyster; but his death appears to have been the consequence of a severe inflammation of the intestine and epiploon, comprised in two large herniæ, to which he had been for many years subject, but which had become strangulated.

Notwithstanding I have had occasion to point out to you the deadly effects of this plant, yet you may derive from its use the most important medicinal results; and with judicious management, you will add to your list of narcotics one more substitute for opium, and a therapeutic agent which, on some occasions, may fairly be considered highly valuable. In the United States this medicine is in much more common use than amongst us, and you will find that they have, in their numerous periodical publications, many instances of their successful employment of it in many morbid states. I am persuaded that you will often be induced, in your practice, to prescribe it, from what I am about to mention to you. I have myself been in the habit of employing it, and have in no instance found any bad effect from it, excepting a disordered state of vision, in which every object appears coloured with rainbow tints, such as is to be observed as a result of some of the other narcotics, and which I have uniformly found to be a monitor of more untoward symptoms. You will occasionally hear your patients, when under the influence of narcotics, and more especially of those which I have classed under the nightshade tribe, speak of films, or webs, of flies before the sight; and when that is the case, you will do right to abstain from the particular narcotic, and change it for some other approaching to it in its power, and at the same time to watch narrowly, lest any cerebral affection follow it. The optic nerve quickly influences the nervous system, or it may be that it is the indicator of an unwonted state.

The extract of stramonium of the London Pharmacopœia is a very good preparation; the formula directs that fifteen ounces of the seed of the thorn-apple should be macerated for four hours, in a gallon of boiling distilled water, for four hours near the fire, in a vessel tightly closed; the seeds are then to be bruised in a stone mortar, and

returned to the fluid from which they are taken for this operation. This liquor is boiled down to four pints. Whilst hot it is to be strained, and then evaporated to the necessary consistence. This is founded upon the preparation recommended by Dr. MARCET, given in the seventh volume of the "Medico-Chirurgical Transactions," and of which he administered from an eighth of a grain to a grain. The London market is, in a great measure, supplied from the gardens at Mitcham, where it is cultivated for that purpose, but I prefer that which grows in the wild state, for, as with many other of the narcotics, it is to be observed that its active principles are more developed when in its natural soil than in an artificial one. It is true, that attentive cultivation is of essential importance to some of those valuable vegetables upon which we are dependant for our comforts and luxuries, and that certain manipulations are required to bring them to perfection, as is the case with the cotton plant, with tobacco, and with flax; but where medicinal virtues are to be obtained, a plant is to be preferred that has chosen its own soil for the development of its seed, and for the full maturity of its offspring. It is difficult to point out what the precise nature of the soil may be on which a particular plant will vegetate more luxuriantly, but I think that you will generally observe that that which it spontaneously selects is more advantageous to it, and more uniformly renders its secretions pure, and causes the plant to abound in its innate proper juices.

The alkali to which it appears that stramonium owes its efficacy, has been called daturine. It is said to be in combination with an acid which approaches nearly to malic. From the experiments of ZOLLIKOFFER, it would seem that the active principle is not lost by long boiling, and that the essential oil possesses none of the deleterious powers that reside in other parts of the plant.

The extract of stramonium is very serviceable in mania, and although CULLEN observes, "that he has no doubt that narcotics may be a remedy in certain cases of mania and epilepsy, though he has not, and he doubts if any other person has, learned to distinguish the cases to which such remedies are properly adapted," yet I believe that there is no drug in the list of the materia medica which warrants a greater degree of confidence than does this in the greater number of maniacal cases. GREDING has given to us the result of much observation and experience on the subject; and we find that in most instances in which he tried an extract upon which he could depend, it induced tranquil sleep, and exerted a salutary influence over the disease.

In the hospital at Stockholm, 14 cases of epilepsy and convulsions were treated with stramonium. Eight were reported to be cured, five received relief, and one obtained no relief; and a girl, a servant at Stockholm, who was subject to severe convulsions, which were attributed to her being possessed of a demon, was completely restored by it. REEF, also, a Swedish physician, was successful in its employment. MURRAY has, likewise, in the "Apparatus Medicaminum," furnished us with a great deal of authoritative information of its value in puerperal convulsions.

Our American friends speak of it in very strong language, as a medicine of utility in epilepsy. Dr. IVES, of Newhaven, used it in not less than a dozen cases of this disease, in most of which he had perfect success. Dr. MARCET, in the year 1826, communicated to the profession his experience in acute pains of different kinds, and he believed that it relieved them more effectually than any of the class of remedies of which I have spoken to you. He instances "four cases of sciatica, in which it proved decidedly beneficial. Also two cases, in which this complaint was combined with syphilitic pains. It failed in two cases of diseased hip-joint. It caused considerable relief of pain in a case of supposed disease of the spine, followed by paraplegia; and likewise in one of cancer of the breast. It allayed materially the pain occasioned by an acute uterine disease. It was of great and repeated utility in a case of tic douloureux. Its utility in a second case of the same description was very doubtful; and in a third it completely failed." Dr. EBERLE, of the United States, in his work on Materia Medica and Therapeutics, remarks, "that he has used it in three cases of sciatica within a year past, and in every instance with the most decided advantage. In tic douloureux it has occasionally been found of advantage, where the sad suffering has resisted a variety of remedies."

Professor BIGELOW, in the "American Medical Botany," says, that he employed it in a case of tic douloureux of long standing, in which he gave it in as large doses as the stomach would bear, and in this he gave it with decided relief. He likewise remarks, "that several practitioners have spoken to him of its efficacy in this formidable disease." Dr. BARTON, of Philadelphia, is another American physician who has had frequent opportunities of employing the datura stramonium, and he draws the attention of the profession to the exhibition of the seeds in chronic rheumatism. In Kentucky it appears to be the favourite remedy. ZOLLIKOFFER says, "In chronic rheumatism it may justly be ranked among the more prompt and efficient articles of the Materia Medica which have been generally sorted to for its removal. In this disease I believe it is less liable to disappoint the practitioner, than perhaps in any other. I

have directed its use, both internally and externally, in a number of cases that have from time to time claimed my professional consideration, with the happiest and most unequivocal success." Ebeale supposes it to be the most efficacious remedy we possess in cases which are attended by an irritable, quick, but weak pulse, with swelled joints, and unattended by any great pain, unless on being moved.

Notwithstanding these high testimonials, I do not think that stramonium has had a fair trial in this country; I have frequently had occasion to employ it, and am most willing to speak of it as an important and valuable remedial agent. I think I have seen more relief afforded, in some painful affections, by an extract of stramonium, than either by belladonna or hyoscyamus. Generally, where some degree of fever has been present, which would have made me hesitate to employ either those herbs or opium, I have administered it with great satisfaction to myself. The smoking stramonium, in various states of difficulty of breathing, seems to have been the theme of more medical consideration in this country than either its internal administration or its external application, for the Americans recommend it in burns, haemorrhoids, psora, and other cutaneous affections; I shall, therefore, defer till my next lecture entering upon a subject which is very interesting to us.

LECTURES
ON THE
PHYSIOLOGY OF THE NERVOUS SYSTEM,
DELIVERED IN 1836, IN THE COLLEGE OF FRANCE.

By M. MAGENDIE.

Lecture XIX.

Smelling, seeing, and hearing. *Previous experiments on smell. (Pathology of the "rot.") Apparent reasons why a recent experiment appeared to demonstrate that the integrity of the olfactory nerves was not essential to smell. Mode of demonstrating, in the pigeon, the decussation of the optic nerves. Experimental destruction of the whole of the anterior lobes of the cerebrum. Divisions of the auditory apparatus. Analogies attempted to be found between the nerves of hearing and seeing. Anatomical disposition of the acoustic nerve. Hearing probably not dependant on a special acoustic nerve. Influence of the fifth pair over hearing. General insensibility of the acoustic nerve.*

Gentlemen:—You bear in mind, I trust, the results we obtained from our experiments on the nerves connected with the organ of vision, and the pathological considerations we laid before you as flowing from the physiological facts observed. Certainly, this organ presents several phenomena which we were compelled to leave without explanation; but we pointed out the only method which can ultimately lead to a discovery of the truth, and console ourselves with the idea that by assiduously pursuing that path we may at some future time arrive at the knowledge which now escapes our means of investigation. However this may be, we hope at least to have been useful in pointing out the erroneous ideas, and still more erroneous hypotheses, entertained on several of the most important points of the doctrine of vision, and so far have done good, for the removal of error facilitates wonderfully the progress of truth.

Having now examined the senses of smell and vision, let us pass to that of hearing; but before we enter on our subject allow me to follow my old custom of examining before you some of the animals on which we experimented during the preceeding lectures. Here is the body of a young dog in which, if you remember, we endeavoured, some days back, to destroy the bulbs of the olfactory nerve. Notwithstanding complete division of the nervous trunks, and destruction of that portion of the cerebral mass from which they spring, the sense of smell remained, as was proved by the animal's sensibility when we passed a flask of ammonia under his nostrils. You may also remember that he even seemed to smell a bit of cheese enveloped in linen, and placed at some distance. To prevent error, which might possibly arise from the animal being guided towards the packet by his sight, we covered the eyes with a bandage, yet he was guided to the odoriferous object by the sense of smell; even this precaution did not content me; to be more sure of the fact, I emptied both eye-balls; two days afterwards the animal continued to distinguish objects by the smell. You might naturally imagine that the death of the animal before me was occasioned by the injury inflicted on his brain; but no such thing, he died of what is vulgarly called the "rot," a disease which the researches I have made induce me to consider to be an inflammation of the gastro-pulmonic mucous membrane, very analogous to that we observe in the human subject. The essential circumstance of this disease is the obstruction which occurs in the pulmonary circulation, giving rise in man, as well as in animals, to all the symptoms depending on a non-oxygenation of the blood. In the present case examination of the chest and abdomen fully bears out the definition I have just given of the disease in question. Look here how the lungs are solidified, hepatized, as the physician would say: the whole substance is impervious, and incapable of transmitting the circulating

fluid in sufficient quantity for the support of life.

To return, however, to the more immediate subject of our studies. Here is an animal which preserved the sense of smell several days after the complete destruction of the olfactory nerves, and which would, probably, have continued to exist, notwithstanding the severe injuries necessarily produced by the experiments performed on it. But you may ask me, How are you sure that the olfactory nerves were completely divided? Perhaps the destruction of the bulbs was only partially effected. This is a question which we cannot answer beforehand; let us, therefore, have recourse to an examination of the brain, which will resolve every doubt upon the point. In the meantime call to mind the manner in which the experiment was performed, and I think you will have little hesitation in supposing it satisfactory: a cutting instrument was passed from right to left, a little above the level of the base of the anterior lobe, and all the parts included between the knife and hard parts were completely divided; the same thing was done on the opposite side, so that it was almost impossible for so tender a structure as that of the olfactory nerves to escape. But why lose our time in conjectures when facts are before us? I now raise up the anterior lobes, and the first thing I discover is a deposit of grey matter occupying the place of the nervous filaments in the ethmoidal fossæ; I now proceed to detach the anterior lobes of the brain, and ascertain more exactly if the nerves have been completely divided, as we imagine. Ha! I fear that a small portion of the external edge of the nerve has not been divided, and in this respect the separation of the trunk from the centre of the nervous system would not be complete. Perhaps, after all, it is only a portion of the pia mater; let us see. No; it is the external edge of the nerve which escaped the action of the cutting instrument. I pray you, Gentlemen, to verify this fact by examining the brain for yourselves; see how nearly all the other filaments of the nerve have been divided, except this little thread at the external border. Experiments are useless, unless their results be announced with the most perfect frankness, and I trust that you will never find that an absurd and culpable *amour-propre* will prevent me from declaring the whole truth. Here the medium of communication between the external world and the brain is extremely small, extremely insignificant; but still it is enough to prevent us from saying, as we thought a short time ago, that the separation of the olfactory bulbs from the anterior lobes of the brain was complete; there still remains, as you may see here, a very small portion of the external edge of the right bulb; the left one has been much more completely destroyed.

The experiment, then, is not so decisive as it might have been; but are we to admit the explanation which some amongst you will now doubtless hazard, viz., that the function of smell was performed by the two or three nervous filaments which escaped the edge of the instrument? I cannot agree with you in this; for if we suppose that the olfactory nerve be the only true nerve of smell, how account for the function having survived after the immense injury the nerve sustained in the case now before us. One would imagine it should destroy the function altogether; at least it must have modified it more or less profoundly; yet, if you remember well, the animal exhibited no lesion whatever of the sense of smelling. The result of what we have just seen, Gentlemen, renders it necessary that we should perform this experiment once more before you; though one of the most striking and remarkable that we have as yet had the honour of showing you, it will require further proof to satisfy the minds of those who may still remain incredulous. When experiments are performed on living animals you must not expect to succeed on every occasion; and, above all, you must proceed with a reserve and caution, in inductions, of which but a few are capable; it was for this reason I said in my introductory lecture that the difficulties of experimenting on living animals are so great that many physiologists turn from them with disgust after a few trials, while a still greater number exclaim against the utility of a means which they are equally incapable of employing or of appreciating.

I shall speak, on another occasion, of the rabbit in which we divided the optic nerves; in the meantime let me direct your attention to the pigeon now before me. In the bird tribe it is easy to demonstrate physiologically the decussation of the optic nerves, by a very simple experiment. You have only to deprive the animal of one eye, and then examine the results of this injury on the internal apparatus of vision. When you destroy the right eye, and allow the animal to live for some time, you will find that the trunk of the optic nerve, beyond the point of decussation, or, in other words, between that point and the origin of the nerve from the brain, has become atrophied. We performed this experiment on the pigeon about fifteen days ago, but instead of destroying the animal to examine the state of his optic nerves, we will perform another experiment, which consists in destroying the whole of the anterior lobes of the cerebrum; this operation equally produces loss of vision; but a far more curious fact that you will have occasion to witness is, that the bird may survive weeks, or even months, after this immense destruction of the cerebral mass, capable of walking about, taking food, and, in a word, executing all the func-

tions necessary for the support of existence. In one of our next lectures you shall examine the optic apparatus of this bird, and the condition of its brain; at present I will merely add, as a conclusion, that if we had touched the optic tubercles the results would have been far different.

Let us now pass to the sense of hearing, and study the connection between the physiological and pathological phenomena which present themselves here. You are, doubtless, sufficiently acquainted with the anatomical disposition of the human ear, a point which I may dispense myself from entering on with any degree of minuteness, the more readily that we know but very little indeed on the uses of the various parts which enter into the composition of the internal ear.

The auditory apparatus is a very complicated one; and, like the eye, is composed of a number of parts, which seem well calculated, from their physical properties, to perfect the function they are subordinate to; these parts communicate, on the one hand, with the external world, through the medium of the atmosphere, and on the other with a peculiar nerve, destined to receive and transmit certain impressions to the sensorium. Anatomists distinguish four principal parts in the auditory apparatus, viz., the external ear, the middle ear, or vestibule, the internal ear, or labyrinth, and, finally, the acoustic nerve (*portio mollis*) of the eighth pair.

The researches of natural philosophers have as yet thrown but little light on the laws which govern the formation and transmission of sounds; indeed, we may say the science of acoustics is at present completely in its infancy; for my own part, I have been unable to apply physics to the study of the physiology of the human ear; attempts have been made I know, but the results are unfortunately of a very insignificant nature.

Unable to follow up or explain the mechanical part of the organ of hearing, the physiologist turns to that portion which is more immediately connected with the centre of the nervous system, and which, under the name of auditory nerve, is supposed to transmit into the brain the impressions it receives from without. But the auditory nerve is not the only one contained in the internal ear; anatomists have described several others, and hence have sought for analogies, more or less fancifully worked up, between the organs of hearing and seeing. The greater part of these are mere aberrations of the imagination; vain and useless efforts at discovering analogies, which, generally speaking, are nothing more than forced similitudes, that a strict and philosophical observer cannot admit. The fact is, that *analogy* is the fashionable hobby of the day. Look at the vertebræ! Not content with twenty-four, some authors contend that the skull is a vertebra; others again, unwilling to be outdone in discoveries of this kind, would add the pelvis to the number; in short, for the amateurs of *analogy*, even the phalanges become so many vertebræ; all this is fine and learned enough, but for my part I prefer a good experiment.

Leaving, then, the analogy between the eye and ear to those who have a taste for such matters, I tell you that the acoustic nerve arises by a set of fine white filaments along the floor of the fourth ventricle, at that part which anatomists call *calamus scriptorius*. On separating from the brain it is closely applied upon the facial nerve, and having entered an opening in the petrous portion of the temporal bone, it divides into several branches, which are distributed to the semicircular canals, and to the cochlea. The mere anatomical disposition of the nerve is sufficient to make us conclude that it is intimately connected with the functions of hearing; but, as we said before, the middle ear and the internal ear are also traversed by other nervous branches, whose presence, in all probability, influences more or less the exercise of the function now under consideration. Of these nerves the principal is the facial nerve, which you know traverses a peculiar canal in the temporal bone, from the internal auditory foramen, where it enters, to the splenoid-mastoid foramen, which gives it exit. As to the connexion between the facial and auditory nerves, I do not think that any anastomosis between them has been demonstrated, nor have I ever myself observed any trace of such connexion; and here I would beg you to remember the difference between juxtaposition and true anastomosis of nervous substance. As to the vidian nerve, the researches of M. Ribes show that it has no immediate connexion with the nerve of hearing; however, the more modern dissections of Arnold, confirmed by some of our own anatomists, fully establish a communication between the fifth and auditory nerves. As to the anastomoses which exist in the cavity of the tympanum, between the several nerves there found, these are well established at the present day, and known to every one.

The brief anatomical considerations which I have just laid before you, are, as you must be convinced, totally insufficient to furnish any grounds for determining how far the portio mollis, or acoustic nerve, influences the sense of hearing. Our experiments have demonstrated that the optic nerve is actually the nerve of vision, for the function cannot exist without the nerve; but, at the same time, they showed us how the olfactory nerves are far from having the same connexion with the organ of smell. Now, it is by no means improbable, that the

same may occur with respect to the organ of hearing; the connexion which modern anatomists have shown to exist between the acoustic nerve and the fifth indicates sufficiently the nature of the influence which the one may exercise over the other. I do not, however, remember any experiments made with the view of clearing up this point; nor have I ever made any myself; but something must be done. We shall presently see, or, at least, we will endeavour to see, if animals become deaf when the acoustic nerves are divided within the skull; but I should warn you that it is extremely difficult to appreciate the results of experiments made on the organ of hearing in animals; thus, they may hear the noise we make distinctly enough, without giving any sign of sensibility. In addition to this, you know how the organ is surrounded on all sides by extremely hard parts; in the centre of one of the hardest bones of the body; finally, it may be the same with the sense of hearing as with that of smelling; the general sensibility may play a more important part than the special sensibility in the production of the former sense, as we have shown that it does in the latter. Vibrations are communicated by the sense of touch, and the same phenomena produced as if a person heard, even when the hearing is completely lost.

In herbivorous animals, the rodentia, &c., the sense of hearing is destroyed by a section of the fifth pair of nerves, but when we perform the same experiment on dogs, we do not constantly obtain the same effects. The influence which the fifth pair exercises over the functions of the organ of hearing is very remarkable, when we consider it in relation to anatomy. Thus, when experimenting on the organ of hearing, we cut the fifth pair at a point more or less distant from where it sends off its anastomosing filaments to the acoustic nerve; while, on the contrary, for the senses of smelling and seeing the fifth is divided, after it has sent off its branches of communication to those organs. It would be curious to investigate the nature of this difference, but as yet we have made no experiments with this view. As to general insensibility, the acoustic nerve ranks with the optic and olfactory; you may irritate it to any degree without producing the least disagreeable sensation; you may even lacerate it without making the animal cry: hence the auditory nerve possesses only special sensibility. The sense which now occupies our attention, will require a great number of experiments, we shall, therefore, defer any further considerations to our next meeting.

CLINICAL LECTURES AND REMARKS,

DELIVERED ON

DISEASES OF THE SKIN, VENEREAL DISEASES, AND *SURGICAL CASES*,

AT THE

SKIN INFIRMARY, AND AT THE JERVIS-STREET HOSPITAL, DUBLIN.

By Dr. WALLACE,

SURGEON TO THOSE INSTITUTIONS.

The consideration of the Exanthematic Forms of Syphilis, *continued. Case of M. D., the wife of P. D. Reports of her case during its first period, or to the thirty-fifth day after her application, being an account of the appearances on her genital organs.*—Remarks. *The correspondence between the character of her disease, and that of her husband. Origin, development, and nature, of the symptoms called condyloma. State of the sebaceous ducts of the cutis affected by this symptom. Influence of this disease on the state of the cuticle and cutis. Consideration of the question, whether the appearances on the genital organs were primary or constitutional. Differences between primary and constitutional condyloma. Effect of inoculation with her own matter. Conclusion from the experiment. Effect of inoculation with the matter of P. D. after she had presented constitutional symptoms. Conclusion, and enunciation of some important laws which govern the propagation of the venereal poison.*

Gentlemen:—In my last lecture on Syphilis, (Lancet, May 20, page 282), I read to you the reports of the case of P. D., and made upon it some remarks. There are still, however, several facts relative to that case upon which I have yet to animadvert; but I shall for the present postpone them, as they will find a more natural place when I come to consider the corresponding facts presented by the

Case of M. D., the wife of P. D.

The case of this woman extends through so long a period, and the symptoms have been registered so circumstantially, and with so much accuracy, that the details would, perhaps, be tiresome if uninterruptedly related. It will, therefore, be the better plan to divide the whole period occupied by the progress of this case into minor periods, and to make, under distinct heads, such general remarks as may be prompted by the facts which each period affords. I shall include in the first period the history of the case to

the 35th day after her application, when her throat became affected. The second period extends to the 90th day, at which time she was attacked with iritis, and the third period progresses from the 90th to the 195th day, when she was discharged cured. I shall now read to you the reports of the

First Period of the Case.

1*st day.* M. D., a healthy-looking female, aged 20 years, the wife of P. D., has on the surface of the left labium pudendum, close to where it is applied to its fellow, a round patch, the size of a sixpence, having a defined edge. Its surface is apparently covered by a thin stratum of a softish crust, of a dirty yellow-brown colour; so that it presents very much the appearance of the encrusted exanthematic primary ulcer, when seated on the common skin. The labium is a good deal swelled, but not inflamed. The patch itself appears bolstered up, as it were, by the subjacent parts. There is a redness of the skin round the anus, and she complains of soreness there, and of smarting in passing water. She has been married seven weeks, and has felt a soreness about four weeks. *Habt. fom. decoct. flor. an. nob. et sulph. sodæ.*

4*th day.* The extent of the patch on the left labium is increased. It has acquired a parboiled, or whitish, pulpy circumference, and its surface looks as if covered with brown-coloured lymph. When caught by the fingers it feels pulpy and hard, and its base is also very hard.

Two other patches have formed; one larger, at the left side of the space which separates the labia anteriorly, and the other smaller, between this and the patch first described. These patches seem to be kept in a moist state. Their centre is a little depressed and white, and their circumference raised, and red. The raphe of the perineum is tumid, and has in it one deep fissure. The skin round the anus is red, its sebaceous ducts are enlarged, and there is an increased secretion. Has no rash, no sore throat, no pains.

7*th day.* Upon rubbing, or cleansing, the larger patch with a piece of lint, and also scraping it with a spatula, so as to clear its surface as much as possible, a number of white points, apparently the orifices of sebaceous ducts, are visible, and an impression is made upon one's mind by this experiment, that the skin covering the patch is not removed, nor yet covered by any consistent film, but simply altered in its texture. The surface of the other patches is more uniformly red. The nymphæ, and all parts of the pudenda, are swollen, but particularly those of the left side, and from pubis to anus. She says that when she walks, the swelling is very great. The glands of the groin are tumid.

8*th day.* The white points on the surface of the larger patch are much more observable than on yesterday, and its whitish or parboiled circumference, which is a little higher than its surface, is apparently owing to a stratum of softened skin. The edge of this white matter terminates next to the centre of the patch in such a manner that the central portion of the surface of the patch appears as if it had been deprived of it, and as if it was an altered stratum of cuticle, or superficial part of cutis. The margin of one of the smaller patches presents a similar white appearance, but its centre does not exhibit white spots, although its ground-colour is the same as that of the larger patch. An additional patch, the size of a split-pea, has appeared between the labia, close to the pubis. It is raised and rounded at its circumference, and with a pair of forceps I have removed a crust or scale from its surface, which, when thus exposed, appears red and flat. The skin round the anus is not sorer. *Ht.ol.ricini*, q. s.

9*th day.* A considerable portion of the surface of the left labium, outside the larger patch, has acquired a white, pulpy appearance, similar to that of the circumference of the patch, and a rounded white spot, about half an inch in diameter, has formed on the right labium, a little nearer the perineum than the larger patch in the left side. It has the same white and pulpy appearance as the border of the patch, and as the diseased surface of the labium, on its outside. The left nympha is much swelled, and it, as well as the tumid raphe of the perineum, presents in parts a whitish, parboiled appearance. She complains of great thirst.

11*th day.* The newly-formed patch on the left labium is elevated and rounded, and its surface presents a number of white points. All the parts seem to be less swelled. *Habeat. acid. nit.*

12*th day.* The margins of several of the patches are rising; the surface of the left nympha is spotted with white points, like the surface of some of the patches; and the surface of the left labium on the outside of the larger patch is, for the extent of half an inch, white, pulpy, raised, or parboiled like.

13*th day.* The rugæ surrounding the orifice of the anus, as well as the raphe of the perineum, are tumid and moist, and sprinkled, as it were, with white spots. The circumference of the larger patch is more raised.

14*th day.* The white spots are more distinct on the surface of the larger patch. They can be picked out with a pair of forceps, and the part at the same time bleeds.

16*th day.* The size of the patches is rather increased, and some of them are surrounded by a faintly-marked, narrow, red, areola.

18*th day.* She says that she has been working hard. The labia are more swelled, and more red, and she complains of pain,

and must void her urine frequently. Her bowels are confined. The diseased patches have all increased in size; the larger one on the left labium has lost its exact rounded appearance owing to its extending unequally; the portion of its border next the orifice of the vagina, as well as the corresponding portion of the patch placed nearly opposite in the right labium, has not the same white appearance as those parts of their borders which are kept in a less moist state. The white appearance at the outer part of the large patch on the left side has extended over a great portion of the same labium.

20*th day*. She says her bowels have been freely opened, and that she is not so sore. She emphatically observes, that "Whenever she walks it makes her sore, and the parts swell very much," but get well again when she lies down, and applies a stupe. She has great thirst, and seems much indisposed. The patches have rather increased, and their margins are more hard and more raised. The whitish, or parboiled, surface of the outside of the patch in the left labium is also becoming raised, but not in a regular or exact circular manner.

21*st day*. She took salts yesterday, and poulticed last night. The labia are less swelled, and all the patches in them are drier and more contracted. The skin, for some way round the anus, is of a browner colour than natural, and close to the orifice of the bowel it is raised, or tumid and moist. The raphe of the perineum is also very tumid, and there are several small patches or spots in the perineum, each about the size of a pea, some of them depressed in their centre, and others gently raised. There is also a freshly-formed, raised, and red patch at the posterior part of the orifice of the vagina.

22*d day*. The patch on the right labium is so much raised, that it forms a considerable portion of a sphere. It is very like a spot which was on the scrotum of the patient Meara. (This spot is represented in this drawing.) The large patch in the left labium has become very elevated, but flat in its middle, and depressed at its circumference. The latter part exhibits the white points, but none are to be observed in the former, which is of a red colour. The skin surrounding the pulpy circumference is white, and outside this the surface is raised, and of a pale red colour. Several small ulcers, the size of peas, have formed in the elevated skin surrounding the anus. The surface of these ulcers has somewhat of a white, pulpy appearance.

24*th day*. Considers herself a great deal better. The patches all seem drier. The one in the angle between the labia, close to the pubis, has its circumference much raised, while its middle is gently depressed, if not ulcerated. The central portion of the large patch on the left labium is reddish and flat, surrounded by a depression or groove, and this by an elevated margin. There is no whitish or parboiled appearance on its surface. The surface of the patch on the right labium is globular or spherical, and its circumference is raised higher than the surrounding parts. Hence, it may be said, that the middle of some of the spots or patches is depressed, of others flat, and of others convex. The patches round the anus, as well as those in the perineum, and at the back part of the orifice of the vagina, preserve their former appearance.

25*th day*. The centre of the patch on left labium is still flat, but is higher than it was. The patches seem better.

26*th day*. The middle of the larger patch on the left labium is more depressed, and the groove surrounding it is less deep. That portion of the circumference of the patch which extended in the form of a white, pulpy surface over the front of the labium, is assuming a circumscribed circular form, and thus is acquiring the appearance of an independent patch. Its centre is now red and flat, and its circumference parboiled-like.

30*th day*. The base of the larger diseased patch on the left labium is very hard, and the white points of the fossa, or groove, surrounding it have coalesced, so as to form a uniformly white surface, or furrow. All the patches are drier, and she considers herself better.

34*th day*. Her menstrual evacuation has taken place since the last report. She says that the discharge, which was remarkably profuse, smarted her very much; and that during its persistence there was a great heat in the parts. The labia seem to be more swelled than before, and the diseased patches are, in general, considerably more elevated. The surface of some of them seems ulcerated. The middle of the flat surface of the one on the left labium is depressed, and the groove surrounding this flat portion is harder than it was, while the base, on which it is placed, feels firmer. The parts about the anus are in the same state as before.

35*th day*. Her menstrual discharge continues longer than usual. The bases of the patches in the labia are still more swelled, and, as they alternate with each other, their swelling has caused the line which separates the labia to present the figure of an S, the upper patch being on the left labium, and the lower on the right. A number of minute spots, individually not larger than a swan-shot, have appeared in the perineum. Each spot is rounded on its surface, which is of a brown-red colour at its circumference, and whitish on its centre, or most prominent part, owing to the cuticle covering it being altered in its structure. Her throat feels sore.

Remarks.

The first point which we have to consider

is the relation between the disease of M. D. and that of her husband P. D. It may be admitted, although the contrary is, of course, possible, that she received the disease from her husband, for she had all the appearance of a chaste, and previously healthy woman, and the stage of her symptoms corresponded with the account given of the date of her marriage. I shall, therefore, take this conclusion as granted, and next inquire into the analogy, or resemblance, between the respective diseases of the husband and wife. If we find that they correspond in their characters we shall have an additional reason for presuming that the latter received the infection from the former; and, further, we shall have an illustration of the fact, that the exanthematic form of syphilis (for such was, you already know, the character of the symptoms under which P. D. laboured), produces its like in another individual. If you reflect on the account formerly given you of the fungous variety of exanthematic syphilis, you will find that the symptoms just detailed in the case of M. D. afford, so far as they go, a very striking illustration of them. Hence you have a proof, not only of the general fact that the exanthematic form of syphilis produces its like, but that the more exhausted the virus is, the more disposed to fungation the symptoms which it produces. It is probable, from the state of the symptoms under which P. D. laboured, that the disease had become, at the date of his marriage, constitutional, and, consequently, that the virus had been a degree further modified than when he had received it. Hence, the disease which he would communicate would be more fungous in its character, because more exhausted than his own disease. It is scarcely necessary for me to observe, that these opinions have been deduced from a close investigation of numerous cases; and the present is to be considered simply as affording an illustration of them. You do not, of course, by any means suppose that I would venture to draw such important and general conclusions upon the foundation afforded by an insulated case. You have, in fact, yourselves seen many other cases which demonstrated this principle, and I shall have occasion to bring some of them under review at a future period.

The diseased patches, or the local symptoms under which M. D. laboured, so far as we have as yet proceeded with her case, would be called by the routine practitioner condylomata; and he would take little trouble to make himself acquainted with the mode of origin of such symptoms, or with the changes exhibited during their progress. But there are no appearances which can excite more interest in the mind of such as are anxious to acquire a knowledge of the natural history of syphilis; therefore the reports have been noted in such a manner that you may deduce from them a precise history. Thus, we find that this form of disease commences by a discolouration, and increased secretion of the affected surface, and that these changes may be presented by an insulated patch, or by an extensive surface. We had an illustration of the former in the numerous insulated patches which appeared in the labia and perineum, and of the latter in the state of the nymphæ, and of the skin surrounding the anus. In this the first stage of the disease, if seated on a part rich in the sebaceous apparatus, this apparatus becomes remarkably developed, and its secretions are greatly increased. Hence this form of syphilis is commonly attended by a remarkable odour, and hence these numerous white points observable in the affected surface. These you noted, not only in several of the insulated patches, but also over the whole surface of the nymphæ and skin surrounding the anus. It is possible, indeed it often happens, that the disease will go no farther than what I have just mentioned, that is, it will produce simply a discolouration of the affected surface, and a morbid discharge. More frequently, however, other changes occur. The part affected becomes more tumid, and this tumidity extends into the subjacent tissue. In this stage of the disease, if it occur in insulated patches, tuberiform eminences,

Condylomata,

for the most part result. The cuticle, and frequently, the more superficial portion of the cutis of these elevations, is observed to be altered in structure. It acquires a more or less white and pulpy appearance. Hence, the eminence often seems as if covered by a stratum of lymph, or lard, which may, with some difficulty be removed by rubbing, and then a bleeding, and vascular surface is exposed. The eminences thus produced sometimes grow so much as to form remarkable fungous projections, and different names have been given to these projections, according to their form, or their supposed resemblance to different natural bodies. These eminences, when once developed, frequently undergo ulceration, and this sometimes produces small pits, or wells, on their surface; at other times it causes the disappearance of the whole fungus, and then presents more the character of sloughing. Inflammation, however produced, is the cause which leads to these changes, and the ulcers thus formed have the characters of common syphilitic ulcers. Their surface, particularly at its circumference, is very often covered by a stratum of lard-like matter, and their edge is sharp, until the process of granulation has commenced. These fungous growths may continue, for a long period, without undergoing much change. At other times they

present, from trifling causes, great varieties in their appearance. Thus, the middle of their surface sometimes becomes depressed, and their circumference raised into rounded margins, or rings. Their colour also varies greatly. It is generally of a dirty or dusky-white hue. At other times it is more brown, and it may be more white. It is necessary for me to observe, and for you to recollect, that the process of ulceration may occur in this form of disease, without its having been preceded by any fungous growth. This is, however, a comparatively rare event, and whenever it happens, you may rest satisfied that there exists some cause which aggravates the effects of the poison. The sensibility of the affected parts, when in the fungous state and uninflamed, is seldom considerable. There are, however, various causes which may render them very sensitive. Whatever excites inflammation, or irritation, has this effect. Hence, walking much, or riding; hence, the occurrence of the menstrual period, as in this patient's case, or any intemperance or irregularity in the mode of living, has the effect of causing considerable distress, which is, in general, said to be of a burning, smarting, and tearing kind.

Were the symptoms, the reports of which I have read, primary or constitutional? This is, at once, a curious and a difficult question. The appearances of the parts afford no assistance in determining it; for there is not any appreciable difference between a primary and a constitutional condyloma. I shall place before you the reasons for supposing that they were primary, and also those for the opposite opinion. First, of the former.

1st. The local appearances were not attended or preceded by any symptoms indicative of a constitutional taint, or, in other words, there was no affection of parts remote from the genital organs, and this is, generally at least, the case when condylomata are constitutional.

2nd. We know from experiment that the secretions from one diseased patch are capable of producing, by direct application, other diseased patches in the same individual, and, consequently, that the numerous patches of disease which existed in this patient may have resulted from the matter of one original patch.

3rd. The history of the development, and the progress of the disease, lead to a conclusion, that the large patch on the left labium was the original primary symptom, and that the other patches were afterwards formed, and, consequently, that they may have been produced by the direct application of the secretions of the original patch.

4th. We shall find, from the subsequent history of the case, that constitutional symptoms followed. The skin, and throat, and eye, became affected, and the general health suffered much. But when condylomata are constitutional, their appearance is, in general, as I have already remarked, either synchronous with the corresponding affections of the skin and other parts, or consequent on them.

On the other hand, you know that the secretions from a primary sore are capable of producing disease in the same individual; and you also know that this power is not possessed by the matter of a constitutional sore, or of a sore which has become by age constitutional, although this matter is capable of producing by inoculation a modified disease in a sound person. Now, if the diseased patches which existed on the pudenda and perineum of M. D. were primary, it might be expected that their matter would certainly produce by inoculation a similar disease on any part of her person, but if constitutional, that this would not occur. The test afforded by inoculation was therefore employed, and with what results you know. To recal them to your memory I shall read you the reports made of the experiment.

"1*st day of experiment, and* 12*th day of case.*—A portion of cuticle, the size of a shilling, having been removed from the anterior and inner part of the left thigh, by a small blister, yesterday applied, three small scrapes were made with a lancet on the blistered surface, and a piece of lint with which the diseased spots had been rubbed, was applied to the part, and retained with adhesive plaster.

"3*rd day of experiment, and* 14*th of case.*—Having removed the dressing from the blistered surface, it looks brown and slightly raised, and somewhat as if covered by a layer of lymph.

"5*th day of experiment, and* 16*th of case.*—The greater portion of the blistered surface is healed, and the remainder, or unhealed portion, presents a number of very small, rounded eminences, which appear to be owing to an enlargement of the parts commonly, but, as I believe, improperly, called the papillæ of the skin. They are slightly whitish. She complains of stiffness of that thigh.

"7*th day of experiment, and* 18*th of case.*—The blistered surface is healed, but presents at one part some whitish points and a degree of tumidity.

"11*th day of experiment, and* 22*d of case.*—The blistered surface of the left thigh continues healed," and it remained healed until the termination of the case. Two similar experiments were made, one previous to that just related, and the other subsequent, and with the same results.

Now, what are we to infer from these experiments? Certainly it would appear from them that the affection was constitutional, for the matter had lost its power of producing disease in her person by inoculation, and this at a time when fresh patches were

spontaneously appearing. It is necessary, however, to observe, that these experiments cannot be received as conclusive until more frequently repeated, because the patches, although originally primary, may have become, in this case, constitutional at the period of inoculation, in consequence of the contamination of the general system; for it is quite possible, indeed certain, that a general contamination may exist some time before it testifies itself by the local symptoms which result from its influence.

But it may be said, How did it happen, that at the very time at which she was insensible to the action of inoculation, with her own matter, fresh patches continued to appear, unless it be admitted that these patches were the result of constitutional disease? Could this circumstance be explained by presuming that the fresh spots which appeared after she seemed insensible to inoculation, were spots which had been generated previously to the contamination of her system, but not having gone through their period of incubation, had not appeared?

Allow me here to remind you of another experiment of inoculation made on this patient, which was attended by interesting results. It is, you already know, a fact, that an individual labouring under *constitutional* syphilis is susceptible of contamination by a primary *pustular* ulcer; or, in other words, that a system, or organization, altered by the action of the syphilitic poison, is susceptible of feeling the influence of a less exhausted variety of the same poison. It is also a fact, that a system impregnated with a given form of venereal poison, is not capable of feeling the influence of a more exhausted poison. Hence, as mentioned to you in my last lecture, a mother cannot be injured by her own infant, to whom she had given the disease, at least so long as her constitution remains as it was when she infected the child; nor can a wife who has received a disease from her husband, injure the husband unless his constitution has been freed in the mean time from contamination, although the infant may be in appearance much worse than the mother, and the wife than the husband. Thus, I have known married men labouring under a small indurated spot on the prepuce give disease to their wives, and cause in them numerous condylomata; and I have known such men under such circumstances to continue an intercourse with their wives without being in the slightest degree injured by them.

Such being facts, I felt an interest to ascertain what would result from inoculating M. D. with the matter of the sores of her husband P. D. after she had become constitutionally affected. The experiment was made, and I shall now read the note which I took of it, although it was made at a later period of the case than the reports which I have as yet read.

"1*st day of experiment, and* 40*th of case.*—A small blister was applied yesterday to the right thigh, and the cuticle of the part being now removed, a piece of lint rubbed with the matter of the sores of P. D. was applied, the blistered surface having been previously scraped with a scalpel. A roller was used to retain the parts.

"2*nd day of experiment, and* 41*st of case.*—Complains of smarting in the blistered surface of the right thigh.

"3*rd day of experiment, and* 42*nd of case.*—Complains still more of smarting in the blistered surface. This surface has a deep-red colour, except at one part, which has a nut-brown tint.

"5*th day of experiment, and* 44*th of case.*—The blistered surface seems healed, and is left uncovered.

"6*th day of experiment, and* 45*th of case.*—The blistered surface is covered by a thick, irregular, hard, and brown crust, scaly-looking, or loose at the circumference.

"7*th day of experiment, and* 46*th of case.*—The crust on the blistered surface is not more prominent.

"15*th day of experiment, and* 54*th of case.*—The blistered surface seems healed.

"26*th day of experiment, and* 65*th of case.*—The surface on her right thigh, which had been inoculated with the matter of P. D., and which seemed to have been many days healed, has, she says, become painful. On examination it presents a raised appearance, and this depends on the existence of several tuberculiform, scaly eminences, each the size of a pea, having their circumferences in contact.

"29*th day of experiment, and* 68*th of case.*—The tuberculated appearance of the right thigh is increased.

"31*st day of experiment, and* 70*th of case.*—The patch on the right thigh continues raised, but the tuberculated appearance is not more evident. Commenced to take the hydriodate of potash.

"35*th day of experiment, and* 74*th of case.*—The blistered surface in right thigh has become nearly smooth, the tubercular spots having previously dilated themselves, and become pale in their centre, so as to form rings."

We are authorised, from this experiment, to infer, that M. D. was susceptible of the influence of the poison of P. D., although insensible to her own poison, which had emanated originally from that of P. D. You must observe that this conclusion corresponds with the general conclusion already made, viz., that a system labouring under a venereal disease is capable of being contaminated by a less exhausted virus than its own. Now, although M. D. originally received the infection from P. D., as soon as her disease became constitutional its virus

was exhausted one grade more than that of P. D., and, consequently, she was still susceptible of the influence of the poison of P. D., although insensible to her own. This is, I repeat, perfectly in unison with the common fact, that if an individual contracts a pustular, primary sore, and gets from it secondary symptoms, the matter of these secondary symptoms will not produce any effect by inoculation on his organization, although he remains susceptible of the influence of the primary pustular virus from which they emanated.

HOTEL DIEU, PARIS.

LITHOTRITY. IMPOSSIBILITY OF WITHDRAWING THE INSTRUMENT FROM THE URETHRA. INCISION.

An accident has lately occurred in this hospital, which calls to mind some of the circumstances which attended an operation performed a few years back by a celebrated lithotritist in this capital.—J. B. Mouchard, 57 years of age, without any profession, of good constitution, has experienced symptoms of calculus in the bladder for about a year. The presence of a stone having been ascertained by sounding, the patient was received into the *Hôtel Dieu* on the 11th of January, 1837.

A few days afterwards, M. Roux commenced the operation of crushing the stone; at the first eight sittings every thing passed off in a favourable manner, but on the ninth the operator, having seized a fragment of the calculus between the branches of the instrument, unfortunately resolved on attempting to extract it entire from the bladder. The instrument, thus charged, easily passed through the neck of the bladder, but stuck fast in the spongy part of the urethra; every attempt of the surgeon to disengage it only producing pain, without any hope of being able to withdraw the instrument, or push it back again into the bladder. Under these circumstances M. Roux decided on cutting down directly on the point of the instrument: this was executed in a few seconds, with his usual dexterity. The fragment of stone was then disengaged from between the branches, and extracted, after which the surgeon found no difficulty in closing and withdrawing the instrument. The patient remained eight days longer in the hospital, but was dismissed at the end of that time, being unwilling to submit to any further attempts at breaking the fragments which remained.

This case gives rise to several considerations, which are of practical value. We may first ask, Was M. Roux justified in attempting to withdraw the instrument, together with a portion of the stone? Certainly not. It requires but little practice in the performance of this operation to know that the instrument refuses to pass through the canal of the urethra unless perfectly closed, and, hence, operators make it a fixed rule to clear the anterior branch by gentle strokes of a hammer, before they think of withdrawing it.

As to the result of the incision, the patient may possibly recover without the inconvenience of an urinary fistula; but this is a point upon which nothing certain can be said. Professor Dieffenbach, of Berlin, is in the habit of mentioning a case in which an accident of a nearly similar nature occurred, but, fortunately, with a different result. A young surgeon who had spent some time in Paris, where, according to his own idea, he had made himself master of lithotrity, was allowed to perform that operation at the hospital. The manœuvre of crushing having been finished, he attempted to withdraw the instrument, but forgot to close the branches, and, accordingly, instead of disengaging it, actually drew the patient after him for a few paces along the floor. Fortunately for the poor man, the operator soon discovered his error.—*Gaz. des Hop.*, No. 14.

Dupuytren sometimes employed his peculiar influence to disconcert his surgical associates in the wards of the *Hôtel Dieu*. If a phlegmonous tumour presented itself, he would say, "Do you think, sir, there is pus here?" If there *was* fluid, the eye of Dupuytren would intimate the propriety of a negative answer to the professor. "Bring a bistoury," then would exclaim the surgeon, and immediately a flow of purulent matter took place. The poor colleague obtained, however, some consolation, for the whole day after, Dupuytren was uncommonly obliging to him. No one was less severe to his victim than Dupuytren. He would assert his superiority in this way, at times, when any one aspired to be ranked as his equal; but of others he would not wantonly expose the errors.

One day a woman, who did not belong to the lowest rank, was brought to the *Hôtel Dieu*. She had dislocated her arm, and all the trials which had been made to reduce it had failed. Preparations were made for employing extension and counter extension. Two attempts at reducing the luxation being unsuccessful, Dupuytren cried out, "Madam, you are addicted to wine, your son told me so." The poor patient, who was a woman of uncommonly temperate habits, was so much excited by this exclamation, that she fainted. Dupuytren took advantage of this, and reduced the dislocation. He then laughed, and clapping her on the head, said, "I know, madam, that you drink nothing but water."

COMPLAINT FROM A DUBLIN COLLEGE STUDENT.

To the Editor.—Sir:—As your Journal is always open to the complaints of the medical student when he has been either ill treated or deceived by those in power, and from whom he can get no redress, I am induced to address you on the present occasion in the hope that it will be noticed in your Journal, and serve as a caution to medical students who are induced to enter for the lectures at the School of the Dublin College of Surgeons, by the professions which the teachers make, and the advantages they pretend to offer at the commencement of the courses of lectures.

In the first place, with respect to the courses of lectures on surgery, subjects of *fractures, dislocations*, and *diseases of the joints*, unquestionably most prominent in a surgical course, were not noticed at all until within three weeks of its conclusion, when a second lecture each day, or, at least, additional lectures at other hours than those fixed on in the prospectus, had to be taken up, in order to *run over them*; thus preventing the student, who had most of his time engaged, from hearing them without neglecting others perhaps of equal importance. As for the operations of surgery, we saw nothing of them, though I am told in the other schools they make a regular part of the course.

Now, as respects the anatomical department. In the advertisement it was announced that four gentlemen would give regular attendance in the dissecting-room; however, for the last three months, (although this is my first course to dissect, and I sadly felt the want of some assistant,) I could not see one of them. The senior table-demonstrator has to look after the giving out of the subjects, so it is not his business to instruct the students; the next in order, I am told, has been sick; the third, a Mr. Parkinson, has never appeared in the dissecting-room at all: I am told he is employed in mangling preparations for the school-museum, and dissecting for the lectures; and the fourth is better qualified to receive instruction than to communicate it.

So much for the School of the Royal College of Surgeons in Ireland, which is said once to have been a flourishing establishment and admirably conducted, but now is inferior both in talent and respectability to any private school in Dublin. My object in writing to you, Sir, is, that students may know what they have to expect if they enter at the School of the Royal College here; and if, after this, they will, for the sake of a handsome-looking certificate, sacrifice their money, knowing that they will not get value for it, they deserve to lose it. I remain, Sir, your obedient servant,

An English Student.

Dublin, May, 1837.

DR. TURNBULL'S EMPLOYMENT OF THE NAME OF MR. BAILLIE.

To the Editor of The Lancet.

Sir:—Observing that my name has been referred to by Mr. Dasent and Mr. Lyon in numbers 715 and 716 of your Journal, I feel that it is due to truth to state, that Dr. Turnbull, by placing my name (in the last edition of his work on diseases of the nerves and eyes) in such a position in regard to the context that his readers must infer my entire approval of it, has exceeded the extent of my permission. My attestation extends only to the state of these cases at the termination of their treatment by Dr. Turnbull; their previous history I was unacquainted with. The first of these cases was that of R. Wright; the second, that of Alexander M'Pherson; and the third, that of James Martin. I am, Sir, your obedient servant,

F. H. Baillie, House-surgeon.
Royal Westminster Hospital,
May 23, 1837.

GROSS IMPOSITION.

To the Editor of The Lancet.

Sir:—The alkaloid base of the aconitum napellus having of late been strongly recommended in some forms of neuralgia, I have been led to try it, and, certainly, with advantage. It is not my intention here to discuss its effects, but simply to lay before your readers the monstrous and unfair expenses to which they are subjected in procuring it.

In a paper recently published in favour of this remedy, the author stated the difficulty of obtaining it pure, and seemed to doubt the possibility of getting it genuine, except at a certain druggist's, whose *name and residence he gave in full*. Thither I have several times repaired, and although I have repeatedly represented myself as a member of the medical profession, I have been told that 3s. 6d. per grain is the lowest charge; nay, on one occasion I was asked, in a conceited and impertinent manner, "if I was aware of the *great dearness* of the substance which I had ordered!" Judge, Sir, of my surprize when I was a few days ago informed by a respectable druggist of this town, that he can procure, and has repeatedly had, this said aconite from this very shop, not a hundred miles from Bloomsbury, for 1s. 6d. per grain! I know that it is a standard rule of the trade to make a larger allowance to each other than to the proprietor, but this exceeds far all my preconceived notions on the subject. Perhaps, now that we have an established and good formula for making this preparation, some of your numerous correspondents will inform us where it can be procured on more liberal terms. I am, Sir, yours, &c., Medicus.

MR. DASENT'S REPLY TO MR. LYON.

To the Editor of THE LANCET.

SIR:—Notwithstanding the insinuation* conveyed in your postscript appended to Mr. Lyon's letter, in the last number of THE LANCET, I can assure you I am not influenced by any desire of flourishing in print, and that in my communication respecting Mr. Turnbull's remedies I was actuated purely by the wish of advancing the cause of truth. Mr. Lyon is certainly one of the most valuable instruments in Mr. Turnbull's armoury, for he not only assiduously "rubs in" to the patients, Mr. Turnbull's endermic remedies, but, on occasion, he even brandishes the pen in his defence. If, however, we are to judge of his proficiency in the former function by his success in the latter, we shall not think very highly of his assistance in the application of his patron's remedies.

The chief complaint I have to advance against Dr. Turnbull is, that in his printed work he has so made use of Mr. Baillie's name, as well as my own, as that any of his readers must suppose both of us to testify to the truth of all the reports; whereas, the fact is, that my testimony refers merely to the simple history of the cases, exclusive of Dr. Turnbull's conclusions, and that of Mr. Baillie relates solely to the state of three patients, at the termination of their treatment.

Mr. Lyons asserts that I am singularly deficient in memory, but if he will exert his own, he will recollect that my reminiscent faculties were rather too good for his purpose. Can he refuse to acknowledge that he twice requested me to sign a report of the cases modified by himself, and which my perverse memory prevented me from conscientiously doing. With regard to his pompous assertion, that *Litera scripta manet*, I have only to observe, that he has no writing of mine in his possession which is inconsistent with the tenor of my letter.

I am fully aware, sir, that controversies as to matters of fact can never be satisfactorily terminated on paper; I shall, therefore, not trouble you with any more communications, but I beg to refer any gentleman who may take an interest in the matter to my former letter, in which will be found the true history of each case, as well as the means of finding out the patient, an examination of whom will enable any enquirer to ascertain the comparative correctness of Mr. Lyons' statement and of mine. I am, sir, your obedient servant,

BURY J. DASENT,
House-Surgeon.

Westminster Hospital, May 23, 1837.

* Mr. Dasent misapplies this word with reference to our note. Controversies so rapidly increase on unimportant and personal points, that we only sought to prevent that error on the part of our correspondents, who must be quite sensible of its inutility and impolicy on such occasions as the present; and, indeed, at once to check it, we took the liberty of preventing one or two remarks that were in Mr. Lyon's letter, from appearing in print. However, suppose we let our correspondents have their way on this occasion.—ED. L.

REVIVAL OF THE CURE OF HYDROCELE BY INCISION.

To the Editor of THE LANCET.

SIR:—In the last number of your Journa I observed a paper on the cure of hydrocele by injections of iodine, as recommended by Dr. Stewart, of Calcutta, and Mr. Martin, the discoverer of the remedy. Having seen the above-mentioned treatment resorted to at the *Hôpital La Charité*, Paris, may I now presume to offer you a few particulars relative to an old remedy for the same disease, which has been equally successful, and it is that which is at present adopted for the cure of hydrocele at the *Hôpital St. Louis*, by M. Jobert, and approved of by M. Richerand. This remedy, bold as it has been successful, is a revival by M. Jobert; it is that of incision. Having found the old treatment of injection to fail so frequently, and sometimes to be followed by dangerous consequences, he tried the present mode. He* commences his incision at the anterior and superior part of the scrotum, and continues it down to the most depending part of the tumour, thereby laying it open through its whole extent, and denuding the testes. By continuing the incision thus far, he guards against the possibility of any of the fluid being retained in the scrotum. After evacuating all the effused fluid, he plugs the wound with charpie, and allows it to suppurate for some days, from four to seven, after which it is healed by granulation, although it is not M. Jobert's wish to heal the wound by the first intention.

I may here state the curious fact, that in the Parisian hospitals all attempts at healing by the first intention have totally failed. I have seen it essayed at *La Charité* by Velpeau, after the manner recommeded by Dr. Macartney, of Dublin, and although it was fairly tried it completely failed. M. Velpeau stated, that whether the cause existed in the constitutions of the patients, or in the air of the hospitals, he could not

* Paulus Ægineta commenced his incision at the tumour, and carried it to the upper part of it, in a line parallel to the raphe.

say, but failure was the invariable result whenever it was attempted.

I have seen many individuals cured of hydrocele during the past session at *St. Louis* by this operation. Indeed, not a single failure occurred amongst those cases in which it was employed, and many of those who were operated on had previously resorted to the old remedy of injection. The last individual on whom it was tried was an old German monk, or friar, whose foot was amputated (Chopart's operation), some time previously, by M. Jobert, in consequence of the effects of syphilis; in fact, his great toe, and the two next toes, were merely attached to the foot by a thin shred of cuticle, as the process of suppuration had extended through the joints, and was extending to the next when the foot was amputated. Still this man recovered rapidly, and was soon restored to perfect health. I am, Sir, your obedient servant,

THOMAS HENRY BURGESS, M.R.C.S.

11, Caroline-street, Bedford-square,
May 22nd, 1837.

NEGLECT OF CORONERS TO OBTAIN PROPER EVIDENCE AT INQUESTS.

To the Editor of THE LANCET.

SIR:—If not occupying too much of your valuable time, I will relate to you an inquest which took place, I believe, only a very short time before your salutary Bill in our favour passed the House.

I was attending a young man, with gonorrhœa, of the name of Hort, who was an inmate of the Collegiate Coffee-house, Tottenham Court-road. During one of his visits to me, he, being a tailor, said to me, "I am making some very delicate embroidered silk waistcoats, and have had the misfortune to grease them, and I am told that prussic acid is the very best thing to eradicate the stain." I replied, "In the first place, I do not consider prussic acid at all calculated to effect the purpose you wish; and, moreover, the effluvia from it, used in any quantity, would destroy you," and I remarked that neither myself nor any other person in his senses would supply him with so subtle and destructive a preparation. Now, this man was of a most vivacious, and more than ordinarily animated character, with a demeanour more respectable and gentlemanly than was to be expected from a person of his class; but upon this occasion I fancied that I detected in his countenance an expression of anxiety and grief, which he endeavoured to overpower by an assumed and uncalled-for hilarity. Accordingly, I presumed thus to speak to and catechise him: "Hort, you want this deadly poison as a means either of your own destruction, or that of some one else; or do you want it to destroy any noxious animal? I doubt the truth of your statement; for God's sake disclose to me any thing that may be preying on your mind, and reflect seriously on the enormity of the act which I fear you contemplate." He replied, "You cannot suppose for a moment that I am tired of my life, sir. I see too much fun and pleasure to wish to quit this world, and I am surprised that such a thing should enter your head; I assure you I only want it for the purpose alluded to." His earnest denial and subsequent disembarassment lulled my suspicions, and induced me to believe that he was telling the truth, and he left me as usual. A few days after, on my return home from a professional round, Mrs. Langley informed me that I must go immediately to the Collegiate Coffee-house, as something particular had occurred; I said, almost instinctively, "Hort has destroyed himself." I hurried to the house, and found the poor fellow dead, having nearly severed his head from his trunk.

In a day or two an inquest was held; the evidence of the person finding him was taken, with the collateral testimony of other inmates, but I, the medical man, was not called; my evidence, if required, would only have tended to more strongly confirm the belief that it was his own act; but the artifice resorted to in order to obtain the prussic acid, would have influenced the verdict, as to a verdict of "insanity," or that horrid alternative, "felo de se;" but, in the event of a doubt existing or arising, as to the death having been an act of self-destruction, or suspicion falling on any other party, of what material and conclusive importance would my testimony have been in removing such impression.

I have merely thus troubled you to shew you the necessity of medical evidence in all cases of sudden and violent death, concurrently with which necessity is the fact, that the coroner should be a medical coroner. Points of law are seldom if ever involved in such inquiries, but medical knowledge most importantly so. I have the honour to remain, sir, your obedient servant,

JOHN LANGLEY.

36, Tottenham-street, Fitzroy-square,
May 19, 1837.

*** With the above letter, we received from Mr. Langley a copy of a communication addressed by that gentleman, with praiseworthy motives and zeal, to the Secretary of State for the Home Department, on the subject of the neglect of coroners to call medical evidence at inquests on bodies found dead. After alluding, in his letter to Lord John Russell, to the improvement in the law effected by the Medical Witnesses Act, Mr. Langley proceeds to point out the necessity of compelling coroners to obtain the evidence of medical men at inquests, on

numerous occasions in which the chain of testimony is incomplete. As illustrations of the propriety of adopting some efficient measures with this view, Mr. Langley details the following circumstances which came under his observation in the parish of St. Pancras. In the first case, medical testimony was required, says Mr. L., "as to the probability of a child having been born alive and afterwards destroyed;" and, in the second, "to prove to the jury that every effort had been made by the professional attendant to revive the deceased from what might have been only a state of suspended animation.

"In November last, the body of an infant was found in the burial-ground of the Tottenham Chapel, and the party finding it applied to me (Mr. Langley) for my advice how he should act. I directed him to report the case to the district magistrate, who further advised information to be given to the parochial authorities, who would, no doubt, apply to the coroner on the subject. This infant was at its full period, and every act had been performed which was necessary in the event of the birth of a living child. In the arrangement of its dress, a precaution had been adopted which would have been absolutely unnessary if the infant had been stillborn. An inquest was held at which neither myself nor any other medical witness was summoned or examined, and the verdict was returned on the following charge from the coroner:—'That the infant was found by a person in the before-described place, dead, but who placed it there no one knew, and whether born living or dead, no one knew also.'

"The second case occurred in the latter end of January last. I was called to visit a man who, I was informed, was hanging from a beam in the cow-house in Tottenham-mews. I hastened to the spot, and found a man, apparently dead. I opened the jugular vein, and another vessel in the arm, and used such resuscitative means as were within my scope, from the situation of the deceased, but they proved unavailing. An inquest was held on the body, but I was not summoned to attend it. The majority of the jury were desirous that I should be called, in order that they might interrogate me upon that, to the public, most important point, what I had done to save the life of a fellow-creature, if a possibility of recovery existed. *The coroner, however, overruled their wishes,* saying that medical evidence was not necessary. If not necessary, my lord," adds Mr. Langley, "in these and parallel cases, on what occasions of inquiry into death can it ever be required?"

The foregoing statements were forwarded to the office of the Home Secretary, on the 17th of March last, and on the following day the subjoined reply was returned:—

"Whitehall, March 18, 1837.

"Sir:—I am directed by Lord John Russell to acknowledge the receipt of your letter of the 16th inst., and to acquaint you, in reply, that Lord John Russell must decline giving directions to the coroner respecting his duty in calling for medical evidence on the holding of an inquest. I am, Sir, your obedient servant,

"SAML. PHILLIPS.

"To John Langley, Esq."

GENERAL REGISTER.

WE, the undersigned President of the Royal College of Physicians, President of the Royal College of Surgeons, and Master of the Worshipful Society of Apothecaries, having authority from the several bodies whom we represent, do resolve to fulfil the intentions of the Legislature in procuring a better registration of the causes of death, being convinced that such an improved registration cannot fail to lead to a more accurate satistical account of the prevalence of particular diseases from time to time.

We pledge ourselves, therefore, to give in every instance which may fall under our care, an authentic name of the fatal disease.

And we entreat all authorized practitioners throughout the country to follow our example, and adopt the same practice, and so assist in establishing a better registration in future throughout England; for which purpose we invite them to attend to the subjoined explanatory statement, in which they will set forth the provisions of the recent statute, and the means whereby the important object we have recommended may most effectually be attained.

HENRY HALFORD,
President of the Royal College of Physicians.

ASTLEY COOPER,
President of the Royal College of Surgeons.

J. HINGESTON,
Master of the Society of Apothecaries.

EXPLANATORY STATEMENT.

The recent Act for registering births, deaths, and marriages in England, presents an opportunity for obtaining that great desideratum in medical statistics—a more exact statement of the causes of death, in the case of every registered death throughout the whole of England and Wales, after the month of June next ensuing.

The register-books in which all deaths are to be registered after the last day of June, 1837, contain columns wherein may be inserted the cause of death, in juxtaposition with those other important illustrative circumstances, the sex, the age, and the profession, or calling, of the deceased person. Each register-book will also be assigned to a particular district of small extent, and will thus show in what part of the kingdom each death

has occurred. If, therefore, the cause of death be correctly inserted, there will exist thenceforward public documents, from whence may be derived a more accurate knowledge, not only of the comparative prevalence of various mortal diseases, as regards the whole of England and Wales, but also of the localities in which they respectively prevail, and the sex, age, and condition of life which each principally affects.

For the attainment of this object it is necessary to insure, as far as it is possible, the "cause of death." It is obvious that on this subject the requisite information can seldom be given to the registrar, except by the medical attendant on the deceased person, and that even if the registrar be a medical practitioner (which in many instances will be the case), yet will he often be unable to ascertain the truth in this respect, if he is to depend solely on the reports of persons ignorant of medicine, and of the names and nature of diseases; and it cannot be expected that from his own knowledge he will be able so far to correct their errors as to insure a statement worthy of credit. The requisite information must therefore be supplied, either directly or indirectly, by the medical attendant of the deceased person; that is to say, if such medical attendant is not applied to by the registrar, he must afford the requisite information to those other persons to whom the registrar must apply.

The persons who, according to the act for registering births, deaths, and marriages in England, must give information to the registrar on being requested so to do, are "some person present at the death, or in attendance during the last illness," or "in case of the death, illness, inability, or default of all such persons, the occupier of the house or tenement, or, if the occupier be the person who shall have died, some inmate of the house or tenement in which such death shall have happened." It is also provided that "for the purposes of this act the master or keeper of every gaol, prison, or house of correction, or workhouse, hospital, or lunatic asylum, or public or charitable institution, shall be deemed the occupier thereof."

It is therefore earnestly recommended that every practising member of any branch of the medical profession who may have been present at the death, or in attendance during the last illness, of any person, shall immediately after such death place in the hands of such other persons as were in attendance, of the occupier of the house in which the death occurred, and of some inmate who may probably be required to give information, written statements of the cause of death, which such persons may show to the registrar, and give as their information on that subject.

It is desirable that such statement should be very short, the column in the register-book in which it is to be inserted being not more than sufficient for the insertion of about ten words of moderate length. It should, therefore, contain only the name of the disease which was considered to be the cause of death, and not a detailed account either of antecedent symptoms, or of the appearances which may have presented themselves after death. It is also desirable that such statement should exhibit the popular or common name of the disease, in preference to such as is known only to medical men, whenever the popular name will denote the cause of death with sufficient precision.

OBSERVATIONS ON

PULMONARY APOPLEXY.

By M. BRICHETEAU, *Physician to the Hospital Necker, Paris.*

Case.—MADAME S., 35 years of age, having every appearance of a good constitution, had been subjected in her infancy to frequent and severe catarrhal affections. She had no children, and had experienced many returns of hæmoptysis; moreover, she was remarkably fresh and plump in appearance, and gave herself up to the pleasures of the world, which her fortune enabled her to do. This lady paid little attention to the affections of the chest, which she referred to the heart, and often expressed to her mother her belief that her complaints would terminate in aneurysm of the heart, and regretted that she had not been sufficiently attentive to her health.

On the 14th of September, 1836, having called at the house of Madame S., to visit her sister-in-law, upon whom I was in attendance for a chronic affection, my patient informed me that Madame S. had gone out of her mind. Receiving this intelligence, I entered the chamber of Madame S. precipitately, found her extended upon her bed, and observed that she had indeed lost her senses. The surface of the body was pale, and the pulse was nearly gone, the pupils of the eyes were dilated; in a word, she was struggling with death. I opened a vein in the arm, but could not obtain blood; I applied cupping-glasses, with ether and sinapisms, but all in vain; Madame S. was already dead. I was afterwards informed that she had in the morning complained of pain in the abdomen, had felt an inclination to vomit, and had eventually vomited some food, of which she had partaken at breakfast, but had, nevertheless determined to go out of her house, when from the sudden attack she was compelled to throw herself upon the bed, in which position she did not survive half an hour.

Autopsy.—The family dismayed by such an event, demanded that the body should be opened, with which I complied, assisted by my colleagues MM. Terrier and Devillers, on the next day (September 15), exactly twenty-four hours after her death. The sur-

face of the body was remarkably pale, except on the back and hips, at which parts there were extensive ecchymoses. The abdomen was slightly inflated. Percussion upon the chest indicated a heaviness, or dulness on the right side only.

We were surprised at the tightness over the abdominal cavity, and the general distension of the skin over that part, which appeared to originate from the enormous development of the abdominal viscera. At the exterior portion of the superior lobe of the lungs, we remarked with astonishment five or six perforations, two of which communicated with each other by means of a fistulous passage, of about two inches in length. Five or six ounces of blood were poured into the pleura of the right side. The lungs contained a considerable number of miliary tubercles. The heart was in a normal state, though small in volume, and free from blood. The internal surface of the stomach was slightly ecchymosed, near to the pyloris, but shewed neither infiltration nor softening. The intestines were in a healthy state. The brain was slightly softened, but was not gorged with blood, nor was any of that fluid poured into the encephalon.

Remarks.—It would not be difficult to prove, in analysing the history of certain diseases which have been well described by modern physicians, that many of those diseases were known from time immemorial, under other names; such, for example, as croup, acute hydrocephalus, and angina pectoris, which were pointed out, or incorrectly described, by the ancients, or by the physicians of the middle ages, and pulmonary apoplexy ought, without doubt to be placed in this category. Balgivi and Van Sweiten have described the first-mentioned disease under the designation of "Catarrhus suffocativus." Lieutaud, though more fortunate than his predecessors, seeing that he was permitted to perform post-mortem examinations, reports two observations upon catarrhus suffocativus, which, however, do not throw much light upon the subject. Evidently, in the work of the said physician, as in those of the two others who preceded him, the word "suffocating" only indicates the mode in which the disease terminates, viz. by suffocation, or asphyxia.

To sum up in a few words, Pulmonary Apoplexy is a sudden disease, which strikes the individual instantaneously, and which, without doubt, is produced by causes which are different from those hæmoptysis, the signs of which are obscure, and the anatomical characteristics less numerous and less complicated than have heretofore been supposed. It is always fatal, and death results by arrest of the functions of the lungs, and not by the heart. In this point of view, this disease ought to be classed under the head "Asphyxia," rather than that of "Hæmorrhageca."—*Jour. Complementaire*, Dec. 1836.

DISLOCATION OF BOTH BONES OF THE FORE-ARM EXTERNALLY.

John Pugh, aged 14, came to the North London Hospital the 6th May, having injured the elbow joint as follows:—He tried to mount a horse, but leaping too strongly, he fell on the opposite side, and pitched upon the ground with all his weight on his left hand. He was seen to fall in that manner by a policeman, who immediately brought him to the hospital, when both bones of the fore-arm were found to be dislocated outwards. The elbow was much distorted, the fore-arm midway between flexion and extension, and rather supined. The head of the radius was very prominent externally; above it there was a depression, and the half of the circumference of the head of that bone was very distinctly observed; the olecranon was prominent, the internal condyle remarkably so; the distance between the olecranon and internal condyle was nearly three times greater than natural. The tendon of the triceps was rather relaxed, the fore-arm could be extended nearly as far as naturally, but could not be flexed to more than a right angle with the upper arm, and when flexed to that point great pain was experienced round the joint. He had the power of pronating the arm a little, and by force it could be placed in the complete prone position; but it could only be supined to a smaller extent beyond what it could on admission. He supported the fore-arm carefully with the other hand. Mr. Barker reduced it in the following manner:—An assistant grasped the limb above the elbow, while he grasped it below, and extended the arm, making lateral pressure; the bones were returned to their natural situation with a slight noise. A bandage was then applied from the fingers to the elbow, and included a compress over the head of the radius, the bandaging being carried above the elbow. An angular splint of pasteboard well padded with tow on either side of the arm, was applied, and confined by means of a roller. The arm was placed at right angles by means of the splints, and afterwards supported in a sling.

POISON OF THE SNAKE IN A GOAT'S MILK.—At a late meeting of the *Calcutta Med. Soc.* Mr. Egerton alluded to a letter which he had received from the upper provinces on the subject of a snake bite. A goat had been bitten, and the milk of the animal was given to the family, the head of which was affected with sickness; he shortly after quitted home, to which, however, he was soon recalled, and informed that the children were likewise attacked with sickness as well as his wife. Mr. Egerton descanted on the remarkable circumstance of the venom of the serpent being communicated to the family through the medium of the goat's milk.

THE LANCET.

London, Saturday, May 27th, 1837.

On Tuesday last Lord MORPETH, the Secretary of State for Ireland, obtained leave to bring in a Bill to regulate the medical charities of that country. The Bill is ordered to be printed, and will be delivered to members of the House of Commons in the course of a very few days. Besides making provision for the government of the medical charities of the sister country, it is probable that some clauses may be introduced into the measure, relative to the treatment of the sick poor in the Unions which are about to be established in Ireland, under the Irish Poor Law Bill, which is now in Parliament. If the whole could be included in, and manmanaged by, one institution, it would be far better thus to concentrate the legal and deliberative power, than to diffuse it through a multitude of Boards or Commissions; and even in the *one* institution, in the one central office, we should regret seeing *several* commissioners, because, if the law which Parliament shall enact be founded on a just principle—and a discretionary power which is to be exercised by a person or persons whom the Secretary of State is called upon to appoint, be, as it ought to be, of limited extent,—it would be more prudent to select only *one* person to regulate the whole commission, or proceedings, than to fix upon *several*, amongst whom the *responsibility* of carrying the law into effect, would necessarily be divided in proportion to the numbers. Even with reference to the Poor Law Amendment Act, which has been brought into operation in England within the last three years, no doubt can exist that if there had been but *one* commissioner instead of *three*, much of the severity which has been manifested in carrying that law into execution would have formed no portion of the complaints against the operation of that enactment.

As the new Bill for regulating the medical charities of Ireland is to be a government measure, care must be taken by the medical practitioners of this country, that they do not permit a series of BAD PRECEDENTS to be adopted, without protesting against them with promptitude and determination.

We almost regret that any attempt should be made to accomplish a partial amendment of the medical affairs of a *portion* of this monarchy, because we are well aware that it can only relieve a few of the evils that press so heavily on the majority of the practitioners of the sister country. One advantage, however, will be gained by the introduction of this measure. It will indicate the disposition of government with respect to what may hereafter be attempted towards making a fundamental alteration in the laws which relate to the practice of medicine in the united kingdom of Great Britain and Ireland.

Unless the present anomalous condition of the law, as it exists in England, Ireland, and Scotland, be entirely and radically removed, no essentially useful change can be effected in the medical constitution. What we want is, a law which shall be uniform in its operation, and just in its principle, conferring, in all instances, equality of title and privilege, and affording to the public the best security for the skill and capacity of every gentleman who may be possessed of a medical diploma. These are the essentials of a sound system of medical government; and if we have them not, the profession will be cheated, the public deluded.

THE Presidents of the Colleges of Physicians and Surgeons, and Master HINGESTON, of the Apothecaries' Hall, have issued a "recommendation," which we publish at page 345, to their professional brethren throughout the country, concerning the entries which are to be made under the new law for the Registration of Deaths. It is a curious fact, that the proposal which has

been made in the House of Commons for registering the name and duration of the diseases of the deceased persons, was rejected, because it did not receive the support of the ministers in that house. In the Lords the clause was adopted; and in statistical pathology it will prove of immense value, if the members of our profession exercise due care in designating the diseases of their deceased patients.

At the conclusion of the Recommendation of the heads of the Colleges and the Company, we find this sentence:—

"It is also desirable that such statement should exhibit the popular or common name of the disease, in preference to such as is known only to medical men, whenever the popular name will denote the cause of death with sufficient precision."

The advice here given, is, in our opinion, calculated to detract, very extensively, from the value of the remarks by which it is preceded, and we hope that, on reflection, Sir Astley Cooper and his colleagues will see the propriety of following up this notice, which they have very prudently issued, with a statement which shall be declaratory of the object that they have in view. Really, on a moment's reconsideration of the subject, they cannot fail to perceive that if medical practitioners fall into the loose habit of recording the *vulgar* names of diseases, to the exclusion of their correct, scientific, appellations, in accordance with nosological nomenclature, we shall only obtain from the Registrars a heap of rubbish which cannot be rendered available for any single useful object. Besides, it should be borne in mind that the vulgar name of a disease which is of frequent occurrence in one county, is unknown to the inhabitants of an adjoining county, and terms which are perfectly well understood by inhabitants of the north of England, are unknown to the population of the south and the west. Again, in the same county, when the body wastes or decays under the operation of some internal chronic malady, whether it be of the heart, the lungs, the stomach, the liver, or the mesenteric glands, the disease, when mentioned, is generally included under the single designation of "consumption" or "decline." What therefore, we would earnestly recommend, is this—that the scientific name should *never* be omitted, when the nature of the disease is actually ascertained, and that, in addition, in all cases, when the complaint is known by an unlearned appellation, the vulgar name should be added to the scientific term. Unless the Presidents of the Colleges issue a further notice on this subject, containing an additional recommendation, of the tendency which we have here intimated, we anticipate that the paper which they have put forth will be productive of very serious and almost irremediable disadvantages.

We hear with regret that William Lawrence, of *St. Bartholomew's Hospital*, whose abandonment of all his former principles and professions is, unhappily, too notorious to require comment, is becoming very obtrusive in every situation in which he has the opportunity of displaying the peculiar and versatile qualities of his mind. He might have considered that it was enough to become disreputable: it shall be our task to prevent him from being mischievous. The work which we are disposed to undertake would be promoted if any of our correspondents could favour us with a faithful abstract of the address which this convert to the principles of medical exclusiveness delivered the other day at the prize exhibition at St. Bartholomew's.

Throughout the whole of the contest on the great subject of Medical Reform, there has been no derilection of public duty, no abandonment of principle, no betrayal of trust, partaking, in the slightest degree, of so disgraceful and lamentable a character, as the abandonment, by Mr. Lawrence, of that cause which he advocated with so much effect and eloquence in 1826; in a word, of the cause of a liberal system of medical government in these realms. If this gentleman had intimated simply a want of consistency,

a want of public principle, he might have escaped with merely being treated with silent contempt, but the obtrusiveness of his "conversion" has become revolting to the feelings of every honest man, and, as we have already intimated, we shall teach this wayward and wicked personage, that he *shall not* be mischievous.

CORRESPONDENCE RELATIVE TO
MEDICAL OFFICERS IN THE NEW UNIONS,
BETWEEN THE
BRITISH MEDICAL ASSOCIATION AND THE POOR LAW COMMISSIONERS.

To the Editor of THE LANCET.

SIR:—The Council of the British Medical Association consider that the publication of the enclosed copies of a correspondence between Dr. Webster, the President, and Mr. Chadwick, may be useful and interesting to the profession at the present moment; they have, therefore, instructed me to send them to you, with a request that you will be so kind as to insert them in THE LANCET. I am, your obliged, obedient servant,

WM. EALES, Hon. Sec.

Southwark, May 24, 1837.

"Dulwich, 21st April, 1837.

"SIR:—As the President of a large medical association, and referring to the conversation I had the honour of holding with you on Saturday last, I desire respectfully to submit the following queries, through you, to the consideration of the Board of Guardians:—

"If medical gentlemen be proposed, or appointed, as parochial attendants, by a Boards of Guardians, and their appointments confirmed by the Poor Law Commissioners, is it considered that such gentlemen hold their situations at the will of the Guardians, or the Commissioners?

"2. Can parish surgeons so appointed be suspended or removed without the approval of the Commissioners?

"3. Are such appointments considered to be held during good behaviour? Are they annual appointments, as under the old law, or can they be terminated at the pleasure of the Guardians, without any particular reason, such as inattention, misconduct, &c.?

"4. Would the Poor Law Commissioners sanction any Board of Guardians in passing certain resolutions (to be made known to five only out of thirty medical gentlemen in the parish or Union), making it *sine qua non* that the candidates should belong to any medical club that might be formed in such parish?

"5. Has any Board of Guardians the power to fix the qualifications of parish surgeon, in so far as that the candidates must be members of the College of Surgeons, *and also* licentiates of the Apothecaries' Company? Is not the exercise of such a power exceeding the limits of the Act of Parliament?

6. Are members of the Scotch and Irish Colleges equally eligible with members of the London Colleges, to the office of medical attendant on the poor?

"Answers to the above queries would be very gratifying to the committee of the *British Medical Association*, now sitting in order to consider the effects of the present plan for administering medical relief to the sick poor.

"I beg to forward the pamphlets† which I mentioned to you, as being, in my humble opinion, worthy of the consideration of yourself and the Commissioners. I am, Sir, your most obedient servant,

"GEO. WEBSTER, M.D.

"To E. Chadwick, Esq., &c. &c."

"Poor Law Commission Office, Somerset-House, 18th May, 1837.

"SIR:—Your letter of the 21st ultimo has been brought under the consideration of the Poor Law Commissioners for England and Wales, who, in reply to your several inquiries, desire to state,—

"1. That the terms of a medical officer's appointment are prescribed by his contract. He is subject to the Guardians' immediate orders, under the rules of the Commissioners, and is only liable to be dismissed by the Commissioners under the 48th section of the Poor Law Amendment Act.

"2. A medical officer can be suspended, or removed, only for gross misconduct, or such neglect of his contract as would disentitle him to the benefit of its provisions.

"3. The appointments of medical officers are annual.

"4. The Commissioners could not sanction the passing of any resolution by the Guardians to the effect described in your fourth inquiry. The only qualifications for medical officers which the Commissioners can allow are,—

First,—The being authorised by law to practise.

"Secondly,—That the person has not rendered himself objectionable, by forfeiting character for skill, or propriety of conduct.

"5. It is competent to the Guardians to appoint any qualified person as medical officer; but it would not be illegal if they, with

† The report of the Provincial Medical Association and Messrs. Romsey's and Cecly's Observations on the present condition of Medical Relief for Sick Paupers.

their present discretion, should insist upon a concentration of legal qualifications, such as are instanced in the inquiry.

"6. The office of medical attendant is not simply that of an apothecary; the Commissioners, therefore, do not consider that members of the Scotch and Irish Colleges are excluded.

"(Signed by order of the Board)
"E. CHADWICK, Secretary."

"To Dr. Webster, Dulwich."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

May 23, 1837.—*Dr. Bright, President.*

NERVOUS AFFECTIONS PECULIAR TO YOUNG WOMEN, CAUSING CONTRACTION OF THE MUSCLES OF THE EXTREMITIES, ACCOMPANIED BY INCREASE, DIMINUTION, OR ABSENCE, OF SENSATION, OR MOTION.

Dr. JOHN WILSON, physician to the *Middlesex Hospital*, in a paper under the above title, read this evening, briefly details the circumstances of ten cases of nervous affections occurring in his practice at the hospital, the subjects of which were all young women, and, with one exception, single. The symptoms in these cases varied exceedingly; in some, simulating disease of the hip and spine, occasionally attended with common hysterical features, occasionally with paralysis of one or other of the limbs, hemiplegia, rigid muscular contractions, and other evidence of extreme nervous affections; generally, but not invariably, the uterine functions were disordered, and the bowels were usually constipated. The treatment consisted in the administration of purgatives by the stomach, as well as in enemata; in the use of acupuncture, the cold shower and douche-baths, large doses of carbonate of iron, and other local and general means, which succeeded, usually in a very short time, in giving entire relief to these distressing affections. The remedy, however, which was productive of the most decided advantage, was forcible extension of the contracted limbs, by obliging the patients to stand unassisted by the sound limbs, and causing them to walk, with assistance, about the ward. These means the author found it often very difficult to enforce, owing to the objections of the patients, and the sympathies excited in the nurses and other beholders, by the apparent severity of the treatment. The author satisfies himself with relating the cases briefly to the Society, leaving it to others to form their own conclusions from them.

Dr. BRIGHT said, that the cases related by the author of the paper were interesting, and advanced some new plans of treating hysterical affections of a severe character which were worthy of the consideration of the Society. How far were the needles beneficial in the instances in which they were employed? He had seen a case in which recovery took place without their application. A young woman had been seized suddenly with loss of sensation and motion in her right hand, as far up as the wrist joint. She was in the habit of getting up in the day-time to sit by the fire. One day she was seized with paralysis of the right leg, and could not get to bed without assistance. She gradually recovered the use of her hand, and, subsequently, of her leg, the only remedial means employed likely to produce such a result being the application of a few blisters to the spine.

Dr. J. JOHNSON said, that the cases of Dr. Wilson proved that hysterical affections, particularly in young women, might simulate organic disease occurring in every part, from the head to the foot, even taking on the character of white swelling, loss of vision, &c. He thought the author had acted wisely in advancing no theory on the subject; the idea of the uterus wandering from one part of the body to another, was as good as any that had been adduced. There were two points of importance respecting these affections; one was, how to distinguish them from real organic diseases; and, secondly, how to treat them best. They were, no doubt, frequently treated erroneously by young practitioners, who supposed that they were organic diseases, and proceeded accordingly, with very active remedies. The patients might get well, and it was thought organic disease had been cured. In determining the nature of the disease, he (Dr. J.) only knew two diagnostic marks of the occasional presence of hysterical symptoms, and the health not being affected to the degree generally found in organic disease; the vital functions going on very naturally during the presence of the most formidable symptoms. Respecting the treatment, it had been powerful in these cases, and, indeed, was often so, various remedies being employed without effect, till time cured the affection, the last remedy employed getting all the credit. Solitary confinement in a black hole was a more effectual means of treatment than any other. Time, he thought, the only remedy in these affections.

Dr. WEATHERHEAD could not agree with the last observation. Many remedies were of great value in hysteria, particularly assafœtida, carminative tinctures, and aromatic bitters, these relieving the flatulence of the stomach and bowels, to which hysterical patients were subject to a distressing extent. He could not understand why some practitioners employed such large doses of carbonate of iron in these affections, for that medicine, being insoluble, could not act until it had been decomposed in the stomach or bowels. The muriatic or acetic acid, were the only two present to effect this

change. Would it not be more direct to administer the muriated tincture, or the acetate of iron? The only reason he could see for using the carbonate was the fact of its lodging in the bowels, and becoming gradually decomposed, and so exerting its efficacy.

Dr. Webster thought that alvetic purgatives, combined with steel, were very useful. He considered a little severity to be beneficial; the cold douche was also a valuable remedy.

Dr. Moore thought, from the sympathy which existed between the cerebellum and the uterus, that hysterical symptoms would generally be relieved by cupping, and the application of cold to the former.

Mr. B. Phillips related the following remarkable case, shewing the inefficacy of all kinds of remedies, in some instances:—A young woman, aged 20, was in good health, when she received a very slight injury, to which her subsequent illness was referred. One day, whilst ironing, she struck herself an inconsiderable blow at the lower end of the radius, just where the radial nerve passes along. The contusion was very slight, but the part swelled, and she complained of very acute pain; which, gradually getting worse for the space of a fortnight, he (Mr. P.) was requested to see her. He found little appearance of injury on the part, but there was much tenderness, which increased on pressure. He ordered leeches to be applied. Two days afterwards there was a little spasm of the surrounding muscles, and incipient contraction of the fingers, which proceeded gradually to the most perfect contraction. She suffered from excruciating pain, which advanced towards the head; cupping and blisters were applied to the back of the head without effect. The contraction extended from the fingers to the wrist-joint, and subsequently to the elbow; in the space of three weeks from the time he first saw her, the vision of the left eye became first imperfect, and was afterwards entirely lost. She suffered great pain, and had severe spasmodic action of the muscles, occurring in paroxysms fifteen or twenty times a day, and always proceding from the injured point. During all this time her bowels were open and her catamenia regular. Counter-irritation applied to the back of the head afforded her no relief; large doses of tincture of opium and hydrocyanic acid were of no benefit; and she went on in this way for three or four months. At a consultation of several physicians and surgeons at the end of this period, various plans of treatment were suggested—excision of a portion of the radial nerve, amputation of the radius, &c. One of the physicians recommended cobwebs to be taken; these were used for a week, and sulphate of iron for three or four weeks afterwards, without any effect. At the last consultation it was determined to leave the case to itself; the health was still unimpaired. At the end of three weeks, having been living on good diet, the patient was better, and, in twelve or thirteen weeks, quite well.

Dr. J. Johnson said, that when he spoke of the inutility of medicine in hysteria, it was the anomalous and puzzling forms of the affection, like the last that was related, common hysteria, many remedies were efficacious.

Mr. Arnott said that the diagnosis in cases of hysteria simulating diseases of the joints was often very difficult to form, particularly in cases where the symptoms followed a slight injury. He thought the general appearance of the patient, and the continuance of good health, a good diagnostic mark. There was, also, seldom much swelling; he had never seen anything like a "white swelling," the tumefaction being always much more limited than in that disease. In cases where the knee-joint was affected from hysteria, the patient complained of pain on motion, and when the ends of the bones were rubbed together, but then the slightest touch of the skin, before the deeper-seated parts were at all pressed upon, produced great pain. The surface, too, was seldom preternaturally hot. Hysterical symptoms were not always present, and the great point was to wait. He had seen a case occurring in the ankle, in which there was pain, and inability to move the joint. In this instance there was pain in the left side, a frequent symptom in hysteria. In hysterical affections of the hip-joint, the limb, though apparently shortened, was not really so, which would be ascertained on a careful and accurate admeasurement. If the patient's mind was kept engaged for the time, pushing the head of the bone against the upper part of the joint produced no pain. Moral treatment was of great effect in hysterical cases. He agreed as to the efficacy of Dr. Wilson's treatment. In the case of the ankle-joint he (Mr. A.) had alluded to, the use of the needles did good. He had seen the cold douche effectual in cases of contraction attended with great pain. In one case in which tetanic spasms attacked the limb, and in which two and three grain doses of morphia were given without benefit, the cold douche immediately relieved both pain and spasm.

The President, on retiring, said, that in the ordinary course of things, this was the last meeting of the Session; but in consequence of several valuable papers being still unread, an extraordinary meeting would take place on Tuesday, the 13th of June. He again mentioned the dilatoriness of members in forwarding their communications, which caused much inconvenience.

Erratum.—Med. Chir. Soc. Page 345, col. 2. line 46, for "lime" read *zinc*.